



Trauma Bag for FMAC -Packing List-

Packing List

Place 1	Place 2	MARCH	Name	Amount
outer front	outside		"MED" patch	1
	upper		scissors	1
			head light	1
			SpO2 monitor	1
			pen	1
			globes	10 sets
	under		sling	1
		M	TQs	8
	back	D	TCCC card	5
			light stick	4
outer side	upper	M	Gauze	4
			Celox gauze	4
	under	M	Emergency Bandage	5
Main	top	M	Celox gauze	6
			Emergency Bandage	4
	2nd top	A&R	NPA	4
			Suction	1
			Chest Seal	4
			Needle for Decompression	4
			stethoscope	1
	3rd top	others	Burntec	2
			ΔBandage	4
			Stretch bandage	1
			Eye shield	1
			Tape (small)	1
			Gauze	5
	4th	C	SAM Junctional TQs	1
		C	Traction Splint	1
	5th	H	HPMK	1
	side	S	SAM Splint	2
			Scissors	1
			Pocket Mask	1
			BP measurement	1
			Litter	1

Outer

Outside: "MED" Patch ×1

Under:
TQs ×8
Sling ×1

Upper:
Scissors ×1
Head light ×1
SpO2 monitor ×1
Pen ×1
Gloves ×10sets

Upper Side:
CeloX Gauze ×4
Gauze ×4

Under Side:
Emergency Bandage ×5



Main space

side: SAM Splint x2

side: Litter × 1

4th: SAM Junctional TQ ×1
Traction Splint ×1

5th: HPMK

Top: Bag for “M”

2nd: Bag for "A & R"

3rd: Bag for “others”

side: Scissors ×1
Pocket Mask ×1
BP measurement ×1



Sub Bags

Bag for "others":

- BurnTec x2
- Δ Bandage x4
- Stretch Bandage x1
- Eye Shield x1
- Tape (small) x1
- Gauze x5

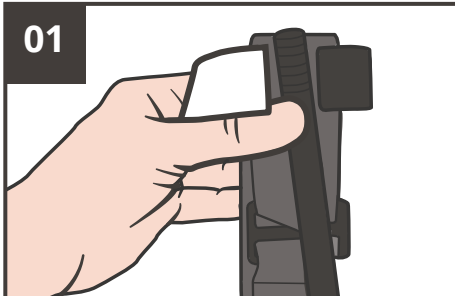
Bag for "M":
Celox Gauze x6
Emergency Bandage x4



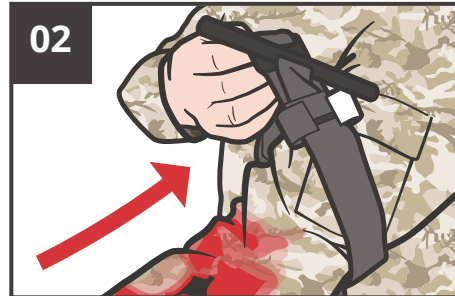
Bag for "A & R":

- NPA x4
- Suction x1
- Chest Seal x4
- Needle x4
- Stethoscope x1

ONE-HANDED (WINDLASS) TOURNIQUET APPLICATION CARE UNDER FIRE (CUF)



REMOVE tourniquet from the JFAK and/or carrying pouch.



INSERT the wounded extremity through the loop of the self-adhering band.



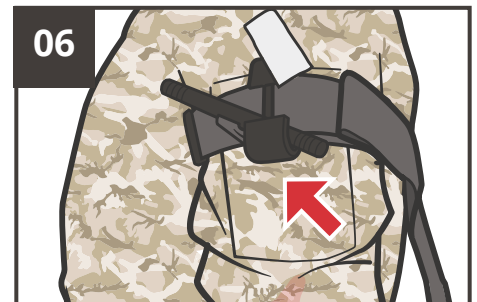
POSITION the tourniquet above the bleeding site, high on the extremity over the clothing/uniform.



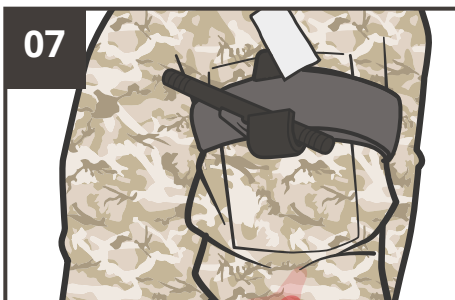
ENSURE all the slack in the band is pulled through the routing buckle before the band is fastened back on itself and the windlass is twisted.



TWIST the rod until bleeding has stopped (*complete steps 1-5 in under 1 min*).



LOCK the windlass rod in place with the windlass clip.



ROUTE the self-adhering band around the rod and between the clips.



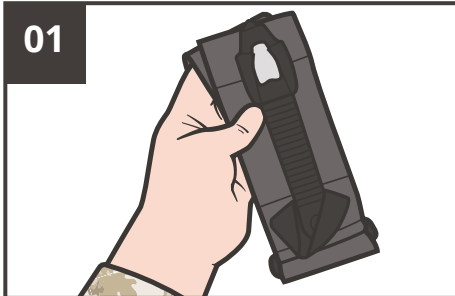
SECURE with the windlass safety strap.

NOTE: Do not document tourniquet application time until the Tactical Field Care phase.



If no other major bleeding is present, **MOVE TO COVER.**

ONE-HANDED (RATCHET) TOURNIQUET APPLICATION CARE UNDER FIRE (CUF)



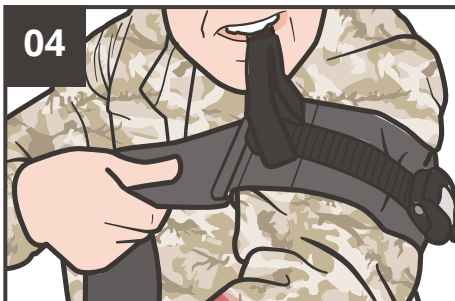
REMOVE tourniquet from the JFAK and/or carrying pouch.



INSERT the wounded extremity through the loop of the tourniquet band.



POSITION the tourniquet above the bleeding site, high on the extremity over the clothing/uniform.



GRASP the tourniquet loop with your teeth (or if able lean against a hard surface) to prevent slipping when tightening.



TIGHTEN the tourniquet strap as much as possible.



LIFT the lever arm of the ratcheting buckle and tighten by ratcheting the tourniquet until bleeding has stopped (*complete steps 1-5 in under 1 min*).



LOCK the ratchet on itself (it will click into place).

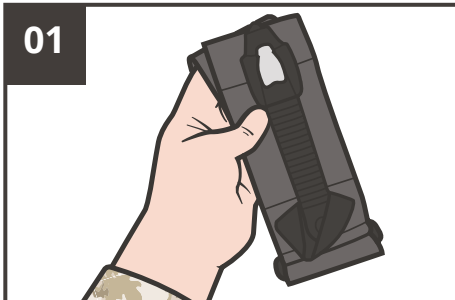


If no other major bleeding is present, **MOVE TO COVER**.

NOTE: If bleeding is not controlled, continue to ratchet the maneuver device until bleeding has stopped.

NOTE: Do not document tourniquet application time until the Tactical Field Care phase.

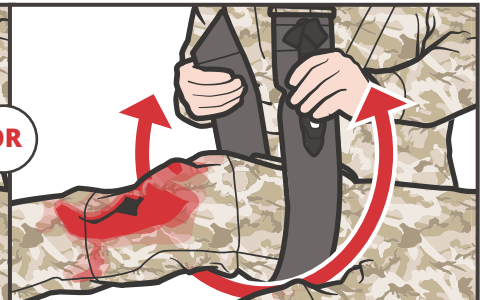
TWO-HANDED (RATCHET) TOURNIQUET APPLICATION CARE UNDER FIRE (CUF)



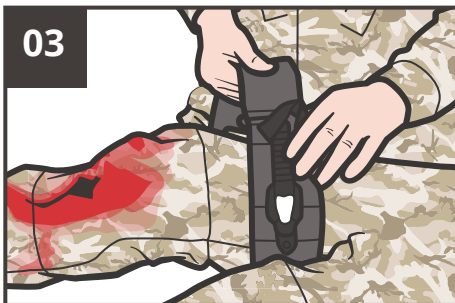
REMOVE tourniquet from the casualty's JFAK and/or carrying pouch.



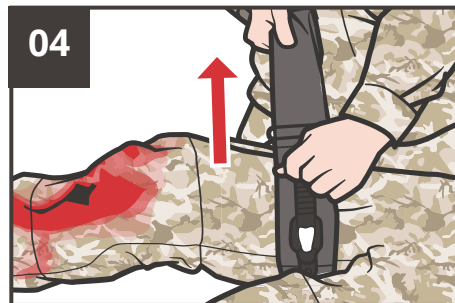
INSERT the wounded limb through the tourniquet strap loop.



ROUTE strap around the limb; pass the tip through the buckle.



POSITION the tourniquet above the bleeding site, high on the extremity over the clothing/uniform.



PULL strap as **TIGHTLY** as possible, removing all excess slack.



RATCHET maneuver device as tightly as possible until the bleeding has stopped (*complete steps 1-5 in under 1 min*).



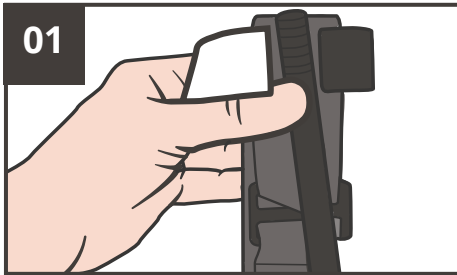
LOCK the ratchet on itself (it will click into place).



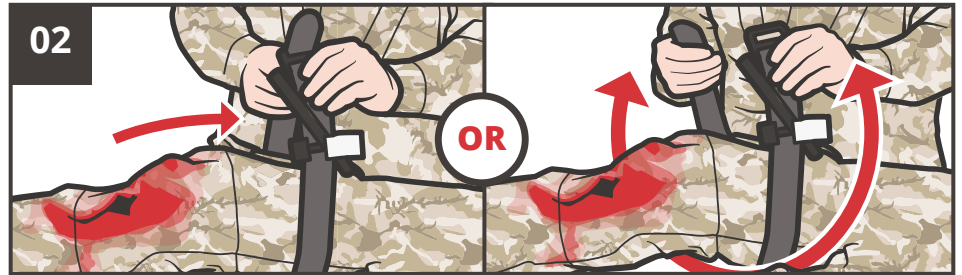
If no other major bleeding is present, **MOVE** casualty to cover.

TWO-HANDED (WINDLASS) TOURNIQUET APPLICATION

CARE UNDER FIRE (CUF)



REMOVE tourniquet from the JFAK and/or carrying pouch.

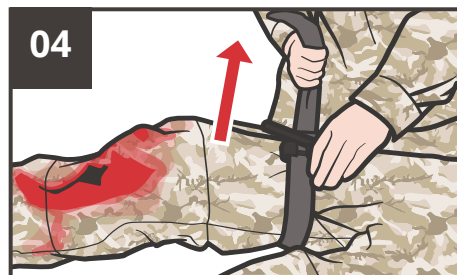


INSERT wounded extremity through the loop of the self-adhering band (looped).

ROUTE band around limb, pass the tip through the slit of the routing buckle.



POSITION the tourniquet above the bleeding site, high on the extremity over the clothing/uniform.



ENSURE all slack in the band is pulled through before fastened back and the windlass is twisted.



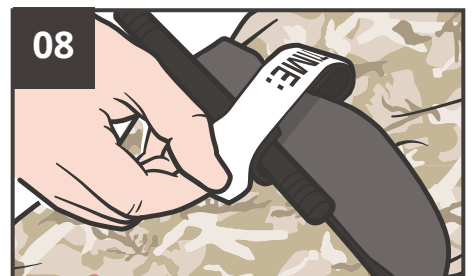
TWIST the windlass rod until bleeding has stopped (*complete steps 1-5 in under 1 min*).



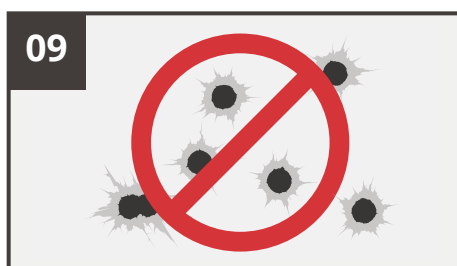
LOCK the windlass rod in place with the windlass clip.



ROUTE self-adhering band around windlass rod and between clips.



SECURE with the windlass safety strap.



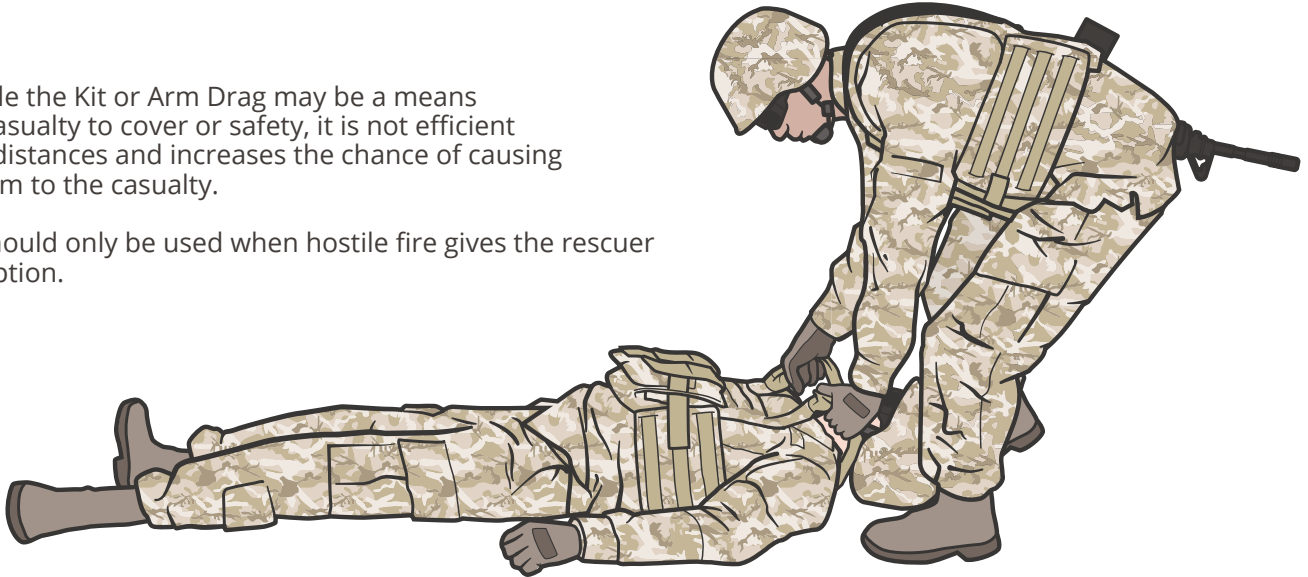
If no other major bleeding is present,
MOVE CASUALTY TO COVER.

ONE-PERSON DRAG/CARRY

KIT OR ARM DRAG

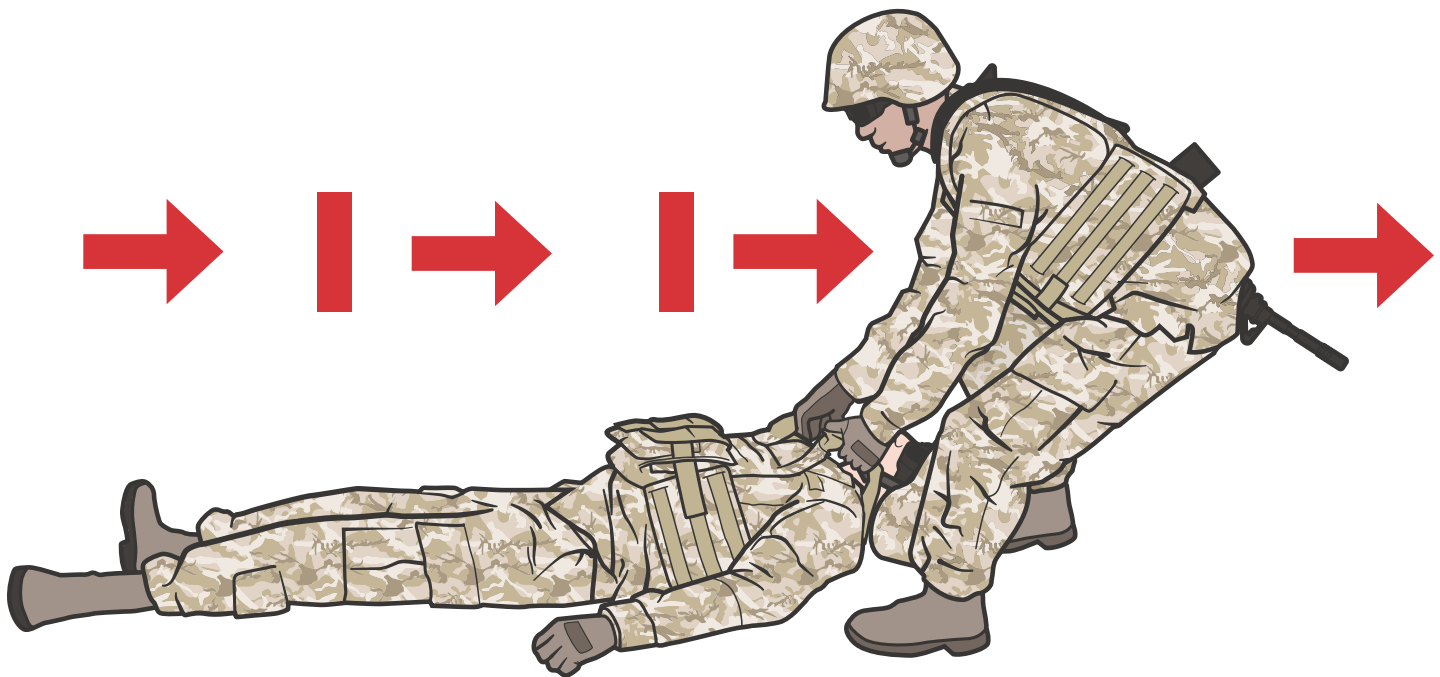
NOTE: While the Kit or Arm Drag may be a means to drag a casualty to cover or safety, it is not efficient for longer distances and increases the chance of causing further harm to the casualty.

NOTE: It should only be used when hostile fire gives the rescuer no other option.



01 **GRAB** the casualty by their equipment (e.g., drag handle, strap) or their arm.

NOTE: Some body armor is equipped with a drag handle. It is important that the equipment is fully strapped and secured onto casualty.



02 While walking backwards (in quick, short bursts), **DRAG** the casualty toward cover.

NOTE: Injury can occur to either the rescuer or the casualty during training drills; keep safety in mind.

ONE-PERSON DRAG/CARRY

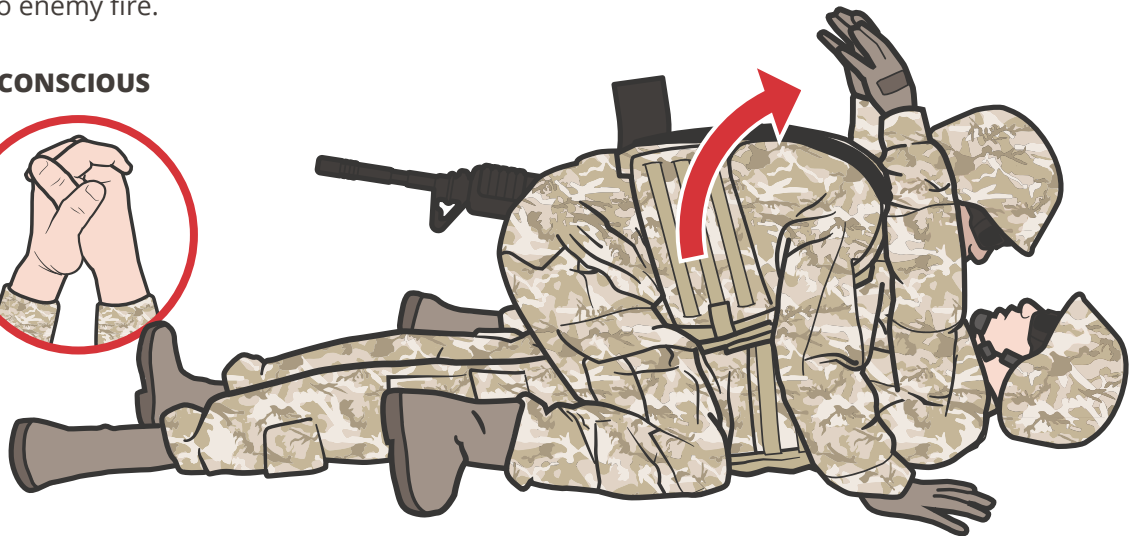
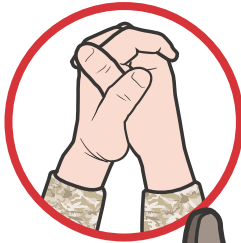
NECK DRAG

NOTE: The neck drag is useful in combat because it minimizes casualty and rescuer's exposure to enemy fire.

UNCONSCIOUS



CONSCIOUS

**01**

Have the casualty **HOLD** their hands together or tie the hands together at the wrist.

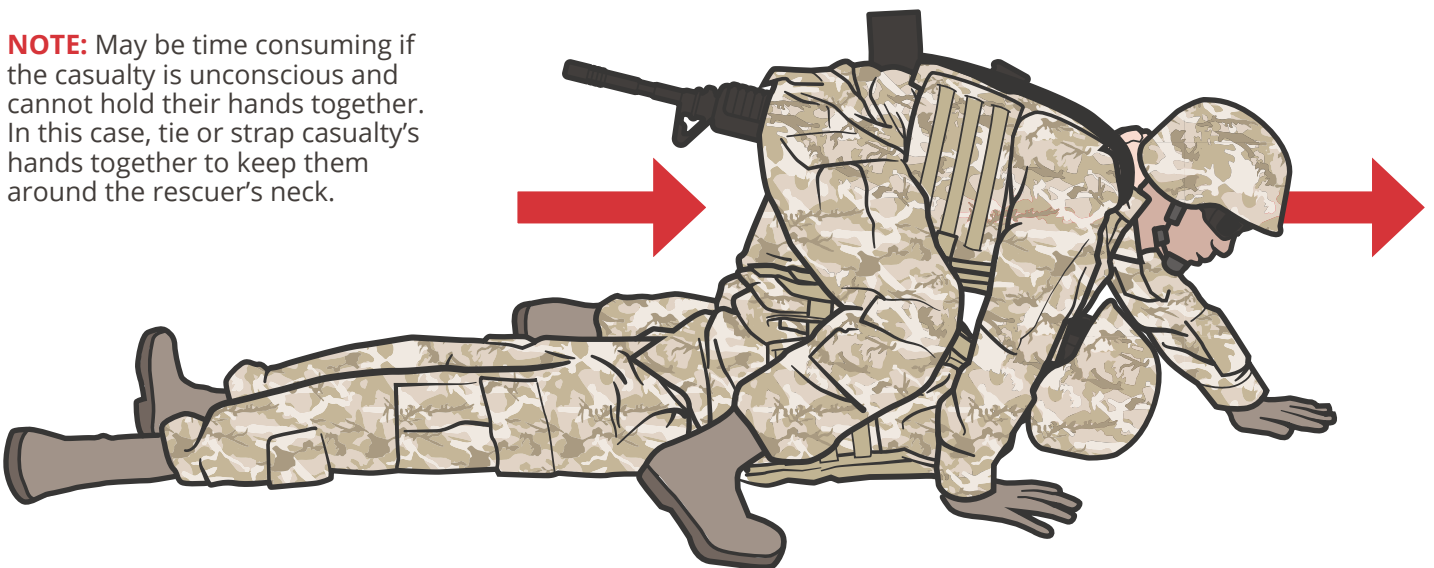
02

STRADDLE the casualty in a kneeling face-to-face position.

03

LOOP the casualty's tied hands over your neck. *(unconscious)*

NOTE: May be time consuming if the casualty is unconscious and cannot hold their hands together. In this case, tie or strap casualty's hands together to keep them around the rescuer's neck.

**04**

CRAWL forward dragging the casualty with you.

05

KEEP the casualty on their back.

NOTE: This can be tiring for the first responder if the patient is heavy or wearing a lot of gear.

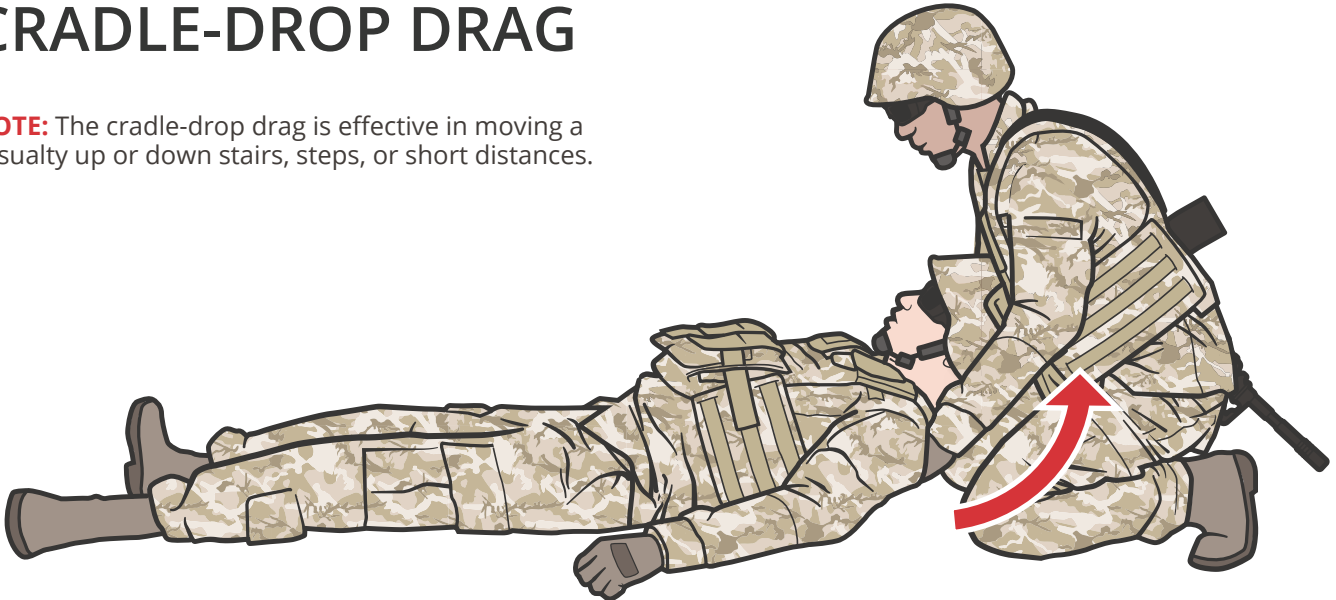
NOTE: Cannot be used if the casualty has a serious arm injury or amputation.

NOTE: If the casualty is **UNCONSCIOUS**, their head must be protected from the ground.

ONE-PERSON DRAG/CARRY

CRADLE-DROP DRAG

NOTE: The cradle-drop drag is effective in moving a casualty up or down stairs, steps, or short distances.



01 **KNEEL** at the casualty's head (with the casualty lying on their back).

02 **SLIDE** your hands, palms up, under shoulders and hold firmly under armpits.

03 **RISE** (partially), supporting casualty's head on one of your forearms.

NOTE: You may bring your elbows together and let the casualty's head rest on both of your forearms.



04 **RISE** and **DRAG** the casualty backwards.

05 If backing down steps, **SUPPORT** the casualty's head and body and let their hips and legs drop from step to step.

NOTE: The casualty is in a semisitting position.

NOTE: If the casualty needs to be moved up steps, use the same procedure.

ONE-PERSON DRAG/CARRY

PACK-STRAP CARRY

NOTE: This should be used for a **CONSCIOUS** casualty only.

NOTE: In the pack-strap carry, the casualty's weight rests high on the rescuer's back.

NOTE: Carrying the casualty high on the rescuer's back makes it easier to carry the casualty a moderate distance (50–300 meters).

NOTE: To eliminate the possibility of injury to the casualty's arms, you must hold them in a natural position around your neck.

01

SQUAT in front of casualty facing in the same direction; have the casualty wrap their arms around your neck.

NOTE: It is best if one of the casualty's arms is routed under one of the rescuer's arms and up toward the neck.

02

GRASP the casualty's wrist and ensure their arm is over your shoulder.

03

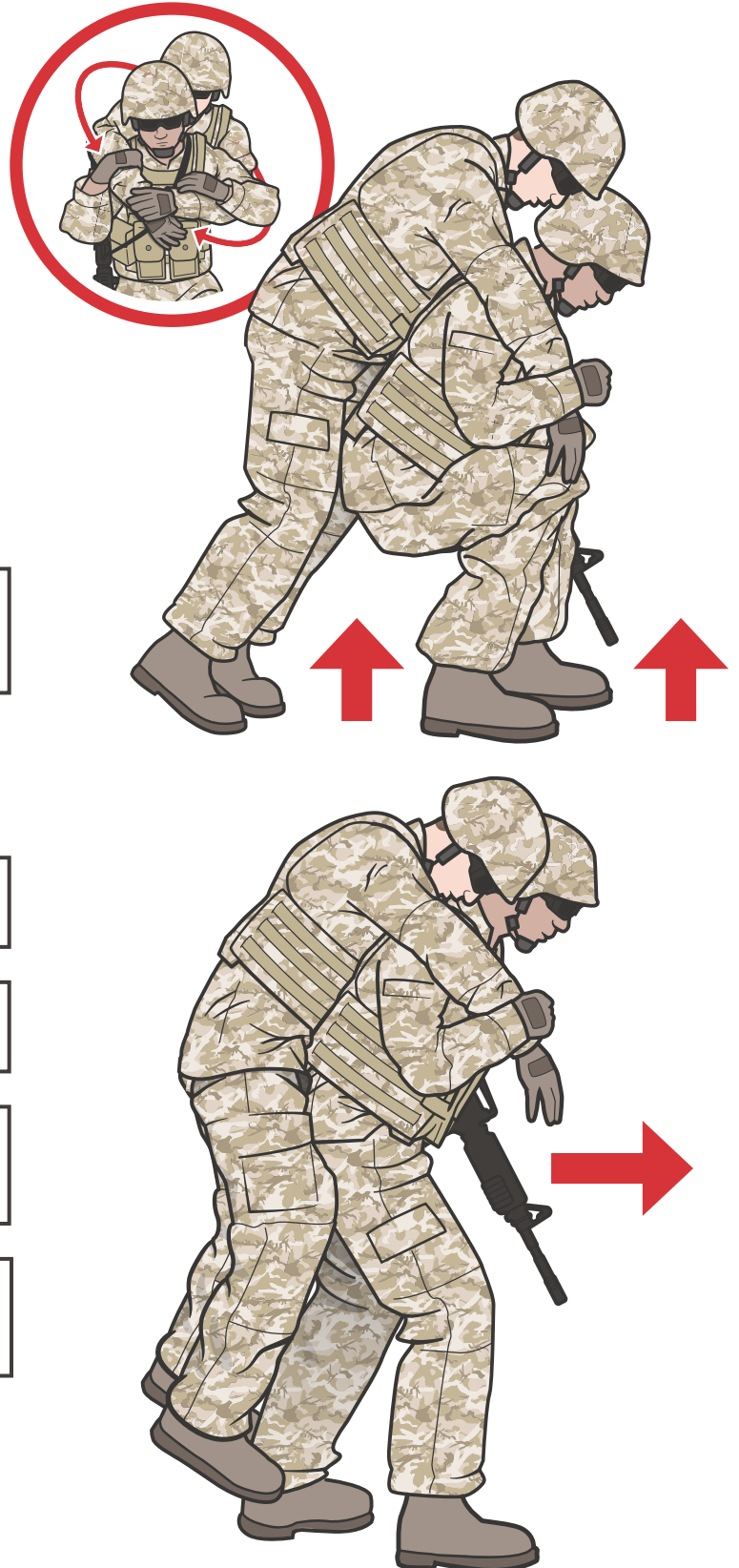
LIFT the casualty off the ground to a standing position using your leg muscles.

04

BEND forward and raise or hoist the casualty as high on your back as possible so that the casualty's weight is resting on your back.

05

Once the casualty is positioned on your back, remain as upright as possible to **PREVENT** straining or injuring your back.



ONE-PERSON DRAG/CARRY

SUPPORT CARRY

NOTE: This should be used for a **CONSCIOUS** casualty only.

- 01** **ASSIST** the casualty from the ground to a standing position.
- 02** With your dominant hand, **GRASP** the casualty's corresponding wrist and draw it around behind your neck.
- 03** **PLACE** your other arm around the casualty's waist, grabbing the casualty's belt or clothing where the belt loop is positioned.
- 04** While using yourself as a crutch, **WALK** with the casualty.



TWO-PERSON DRAG/CARRY

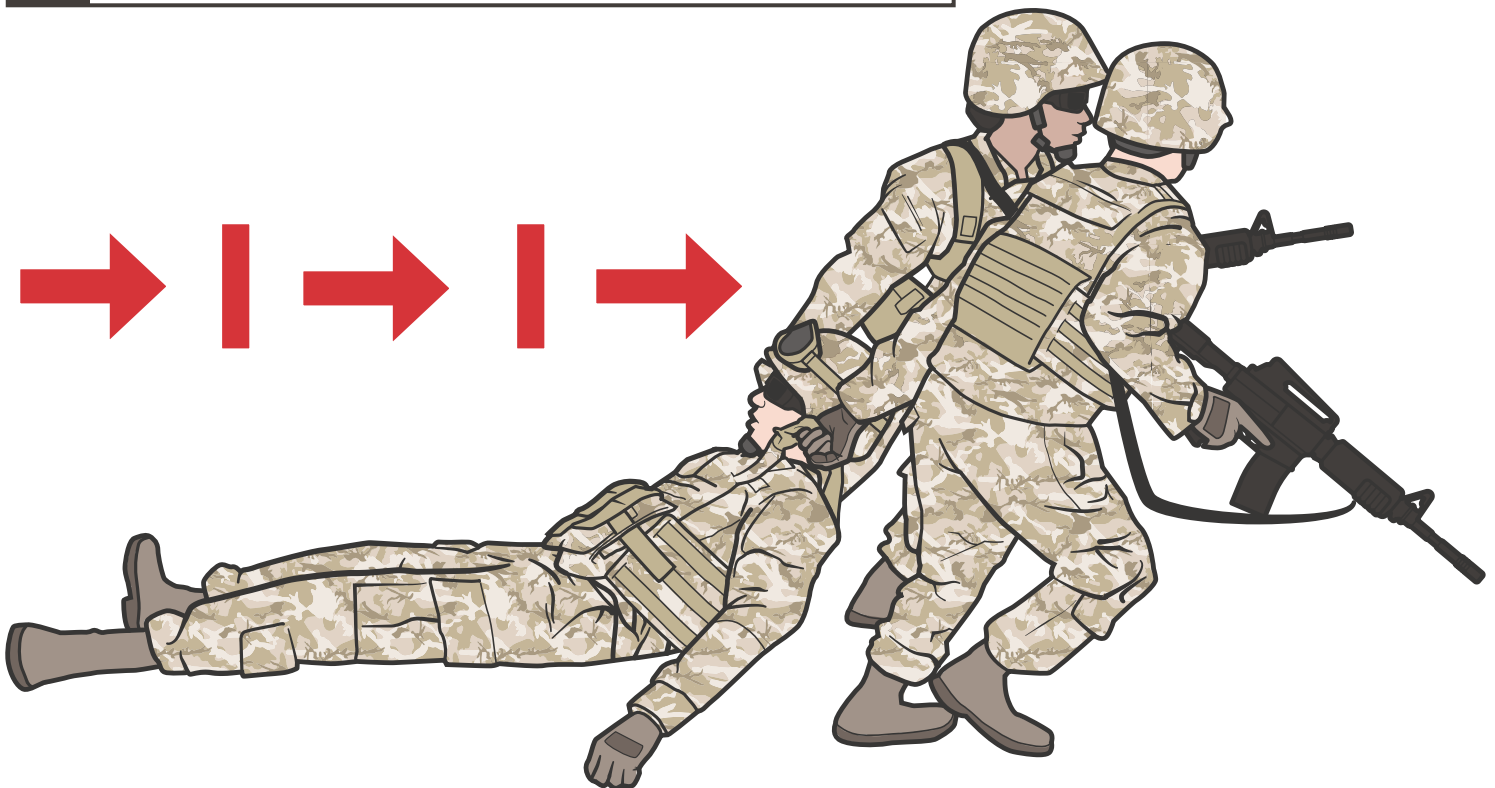
KIT OR ARM DRAG

NOTE: Some body armor is equipped with a drag handle. The equipment must be fully strapped and secured onto the casualty.

NOTE: While the Kit or Arm Drag may be a means to drag a casualty short distances to cover or safety, it is not efficient for longer distances and increases chances of causing further harm to the casualty.

NOTE: This allows the rescuers to maintain a “weapons up” posture while executing the drag.

- 01 **ALIGN** yourselves alongside the casualty.
- 02 Each of you **GRAB** the casualty by their equipment (e.g., drag handle, strap) or their arms.
- 03 **DRAG** the casualty behind you going forward as quickly as possible in short bursts of movement.



NOTE: Injury can occur to either rescuer or casualty during training drills; keep safety in mind.

TWO-PERSON DRAG/CARRY

SUPPORTING CARRY

NOTE: The two-man supporting carry can be used in transporting both conscious and unconscious casualties.

- 01** If conscious, **MOVE** casualty to their feet and support them with your arms around their waist.

OR

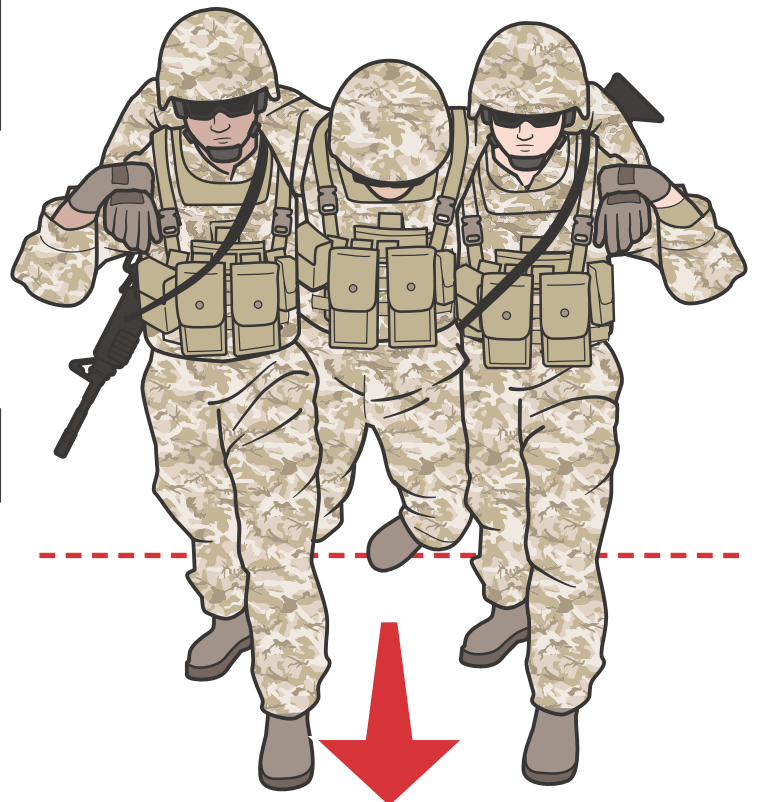
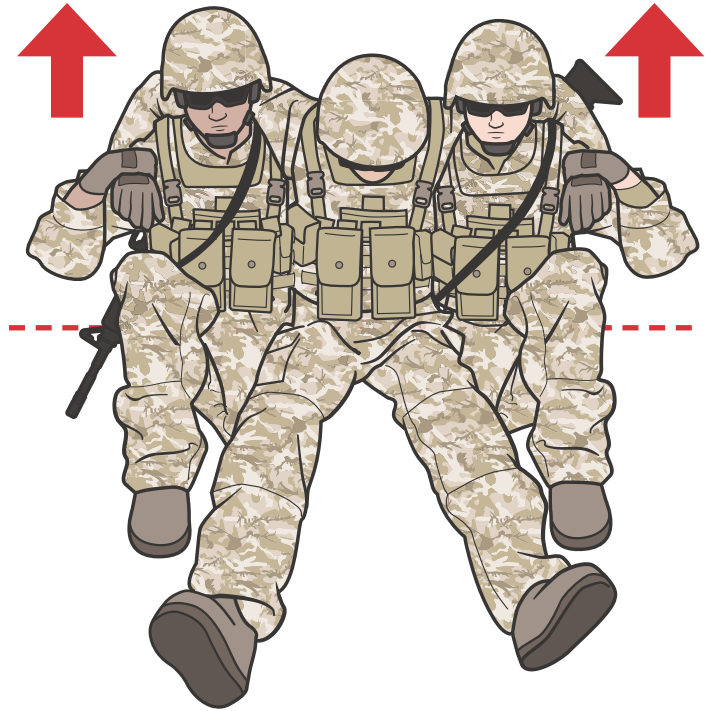
If unconscious, both **KNEEL** next to the casualty and **RAISE** them to a seated position facing in the same direction as you.

- 02** **GRASP** the casualty's wrists and draw one of his arms around each of your necks. *(The casualty should use their arms to hold onto you, if able).*

- 03** Place other arm around the casualty's waist and **GRAB** the casualty's web belt, if worn, or their clothing/equipment, if possible.

NOTE: If unconscious or if the casualty is taller than the bearers, the bearers can remove their arms from the casualty's waist and place them behind/under the casualty's thighs for support; this keeps the feet from dragging.

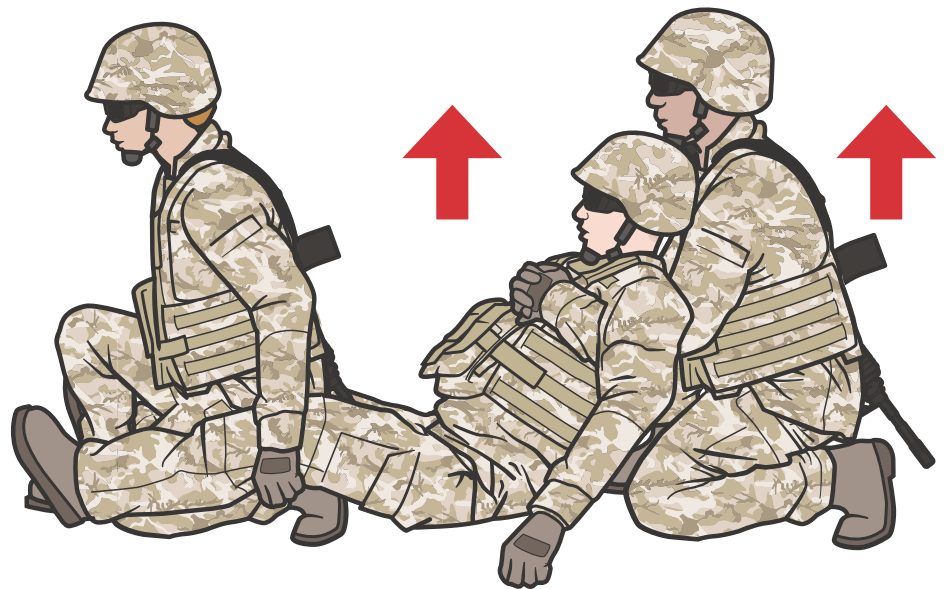
- 04** **LIFT AND SUPPORT** the casualty while moving forward.



TWO-PERSON DRAG/CARRY

FORE-AND-AFT CARRY

- 01 **POSITION** casualty on their back with arms by their side.
- 02 The taller of the two rescuers **KNEELS** at the casualty's head and faces the casualty's feet.
- 03 That rescuer slides their hands under the casualty's arms and **LOCKS HANDS** together over the casualty's chest.
- 04 The second rescuer spreads the casualty's legs and **KNEELS** between them, with rescuer's back toward the casualty.
- 05 Then, the second rescuer **GRASPS** the casualty's legs, placing their hands underneath the casualty's knees.
- 06 **RISE TOGETHER** on the count of three.
- 07 **WALK FORWARD** in unison with the casualty.

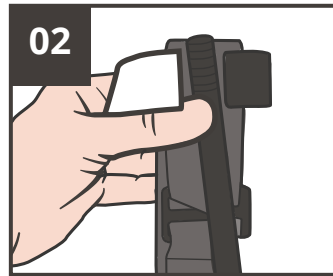


TWO-HANDED (WINDLASS) TOURNIQUET APPLICATION

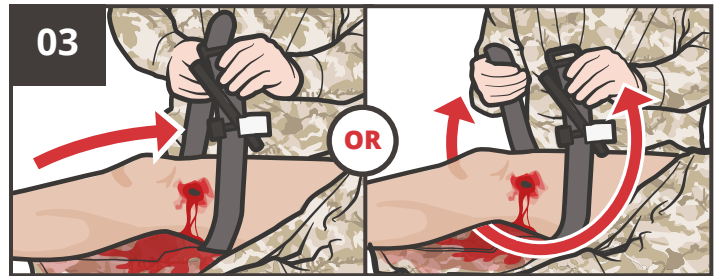
TACTICAL FIELD CARE (TFC)



EXPOSE and **ASSESS** the wound.

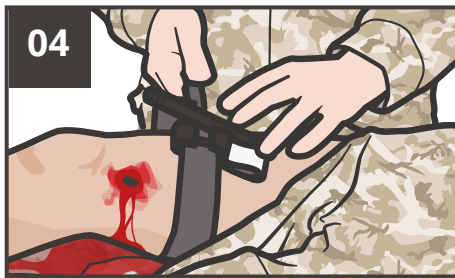


REMOVE tourniquet from the casualty's JFAK and/or carrying pouch.

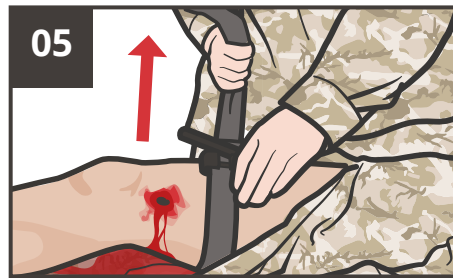


INSERT wounded extremity through the loop of band (looped).

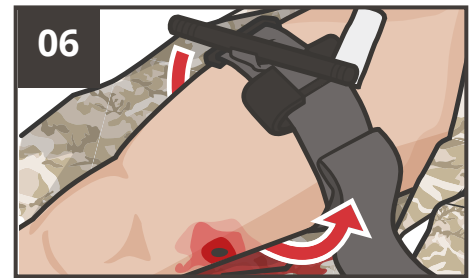
ROUTE band around limb, and through routing buckle.



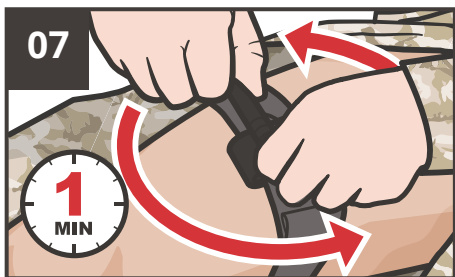
POSITION 2-3 inches above wound directly on skin.



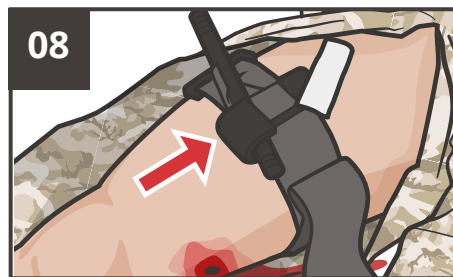
PULL self-adhering band as **TIGHTLY** as possible.



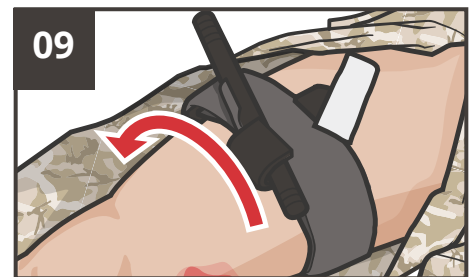
FASTEN it back on itself all the way around the limb.



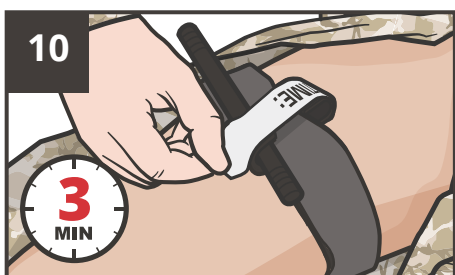
TWIST the windlass rod until bleeding has stopped (*complete steps 1-6 in under 1 min*).



LOCK the windlass rod in place with the windlass clip.



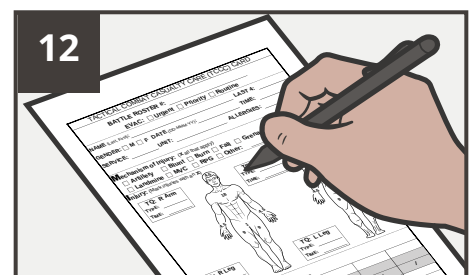
ROUTE self-adhering band around the rod and between the clips.



SECURE with the windlass safety strap.



ANNOTATE time of tourniquet application.



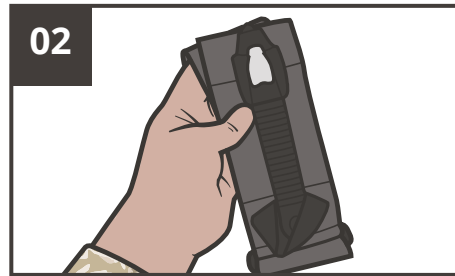
DOCUMENT all findings and treatments on the DD Form 1380 TCCC Casualty Card and attach to casualty.

TWO-HANDED (RATCHET) TOURNIQUET APPLICATION

TACTICAL FIELD CARE (TFC)



EXPOSE and **ASSESS** the wound.



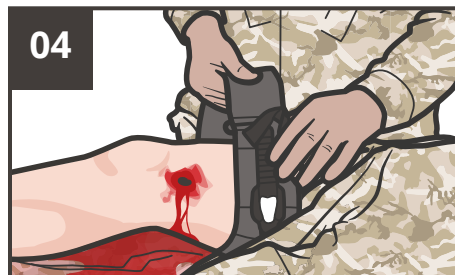
REMOVE tourniquet from the casualty's JFAK and/or carrying pouch.



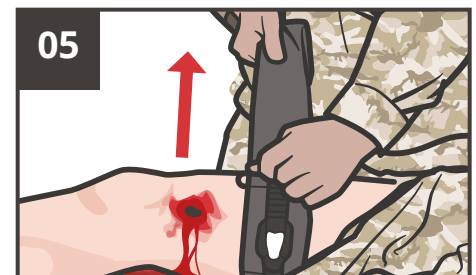
INSERT wounded extremity in the loop of the tourniquet strap.



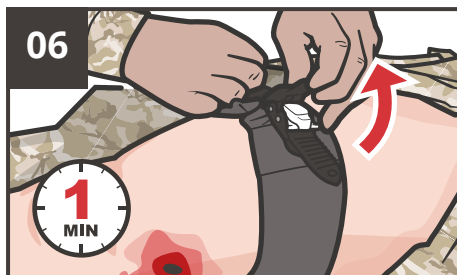
ROUTE band around limb, and through routing buckle.



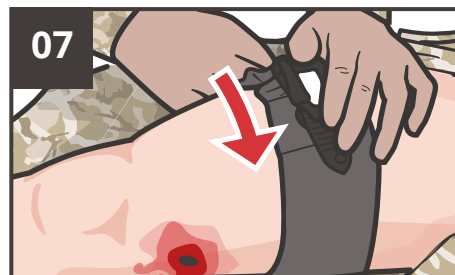
POSITION 2-3 in above wound directly on skin.



PULL strap as **TIGHTLY** as possible, removing excess slack.



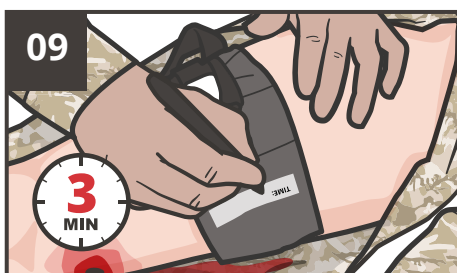
RATCHET device as tightly as possible until bleeding stops (complete steps 1-6 in under 1 min).



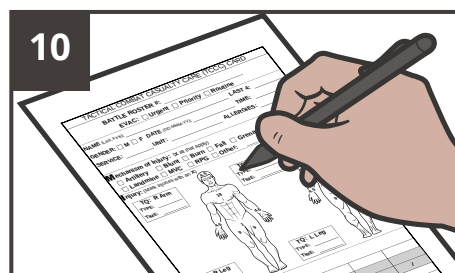
LOCK the ratchet on itself (it will click into place).



WRAP excess strap around the ratchet device and **SECURE** in place.



DOCUMENT the time of tourniquet application on the strap.



DOCUMENT all findings and treatments on the DD Form 1380 TCCC Casualty Card and attach it to the casualty.

NECK JUNCTIONAL HEMORRHAGE CONTROL



EXPOSE the injury and assess the bleeding source.



APPLY DIRECT PRESSURE to bleeding source, use dressing from casualty's JFAK.



PACK wound tightly with hemostatic gauze until the wound cavity is filled.



ENSURE gauze extends 1-2 inches above the skin.



HOLD pressure for a minimum of 3 minutes.



REASSESS to ensure bleeding has been controlled while maintaining pressure.

IF BLEEDING HAS NOT BEEN CONTROLLED:

07a

If packed with hemostatic dressing, remove and repack starting at **STEP 03**.



07b

If packed with gauze, apply additional gauze and pressure (for 3 min) until bleeding stops.



PLACE an elastic bandage over the dressing leaving enough tail to tie it into a knot.



While maintaining pressure, **WRAP** bandage (no less than 1½ times) over the packing material covering it completely.



WRAP diagonally across the chest under the opposite arm (armpit) around the back to the neck and back over the wound.

Continued on the next page...

NECK JUNCTIONAL HEMORRHAGE CONTROL

Continued...

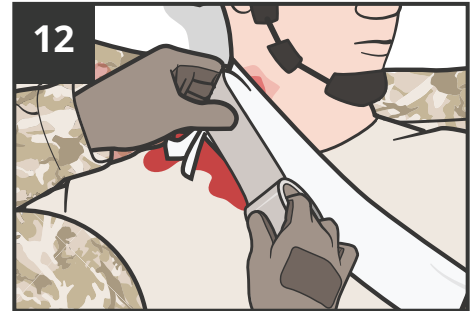


10 **WRAP** around neck and under the arm (on alternating sides of the tail, while maintaining tension/pressure), pulling elastic bandage tightly for pressure, covering the packing material.

NOTE: Do not use pressure bar on the neck.



11 **SECURE** the dressing by tying a non-slip knot with end of elastic bandage and its tail.



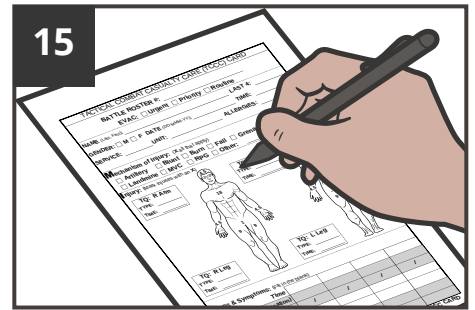
12 **SECURE** elastic bandage tails with tape, wrapping a minimum of 1½ times around the knot.



13 **SWATH** the upper arm (of the injured side) to the chest using a bandage.

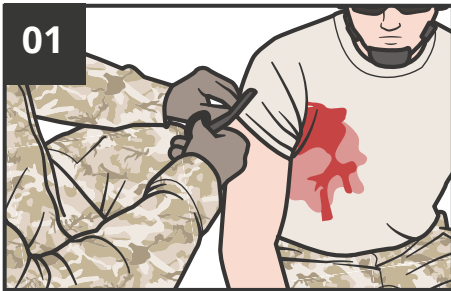


14 **CONTINUE TO ASSESS** wound for further bleeding.

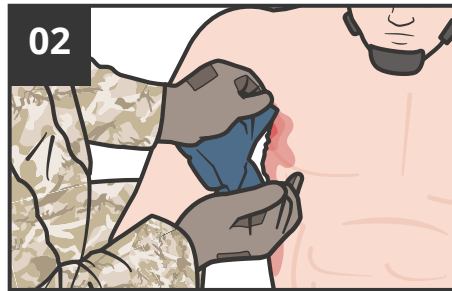


15 **DOCUMENT** all findings and treatments on the DD1380 TCCC, Casualty Card.

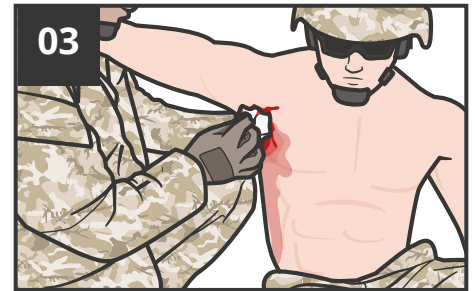
AXILLARY (ARMPIT) JUNCTIONAL HEMORRHAGE CONTROL



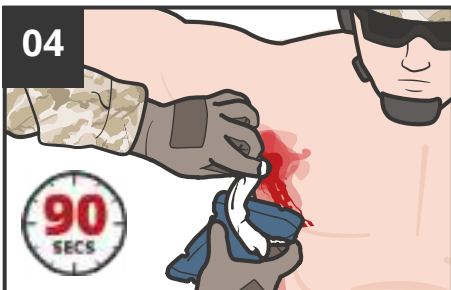
01 Cut away any clothing (to **EXPOSE** injury) and lift the arm to assess the bleeding source.



02 **APPLY** direct pressure to the most active bleed. **PREPARE** hemostatic dressing.



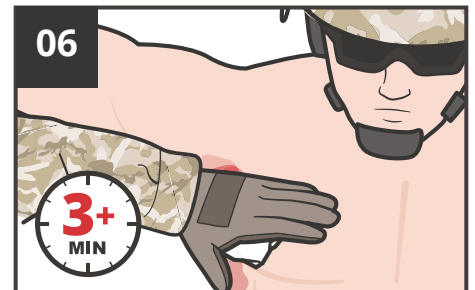
03 **EXTEND** the casualty's arm at a 90-degree angle by placing it on your shoulder.



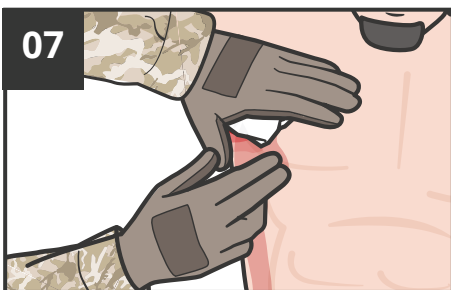
04 **PACK** the wound tightly with hemostatic gauze until the wound cavity is filled.



05 **ENSURE** the gauze extends 1-2 in above the skin.



06 **HOLD** pressure for a minimum of 3 min.



07 **REASSESS** to ensure bleeding has been controlled while maintaining pressure.

IF BLEEDING HAS NOT BEEN CONTROLLED:

08a If packed with hemostatic dressing, **REMOVE** and **REPACK** starting at **STEP 03**.

OR

08b If packed with gauze, apply additional gauze and pressure (for 3 min) until bleeding stops.

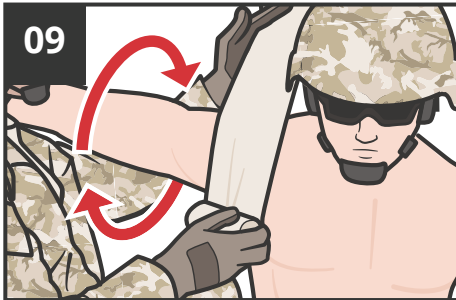
Continued on next page...

NOTE: Clothing may need to be cut away to properly expose the injury.

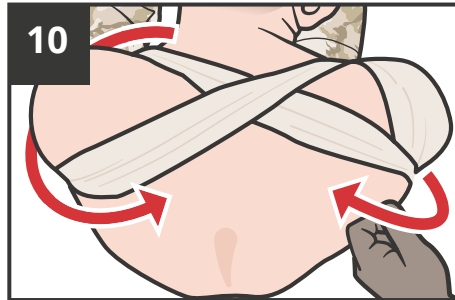
NOTE: The best position to treat the casualty is the seated position. If the casualty cannot be treated in the seated position, you will need to sit the casualty up as much as possible to apply the elastic bandage.

AXILLARY (ARMPIT) JUNCTIONAL HEMORRHAGE CONTROL

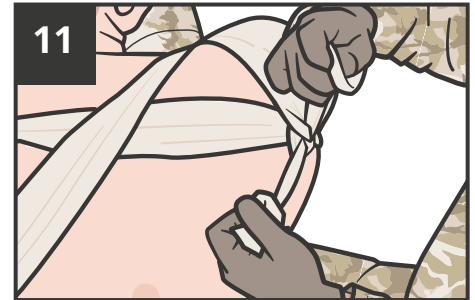
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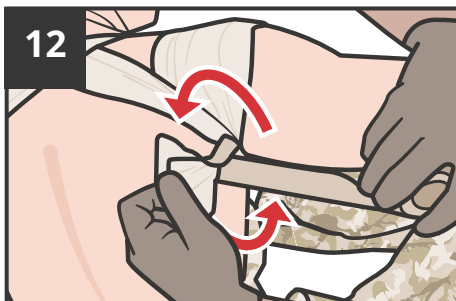
While maintaining pressure on the dressing/gauze, **WRAP** the pressure (or elastic) bandage around injured shoulder twice ensuring the gauze underneath is completely covered.



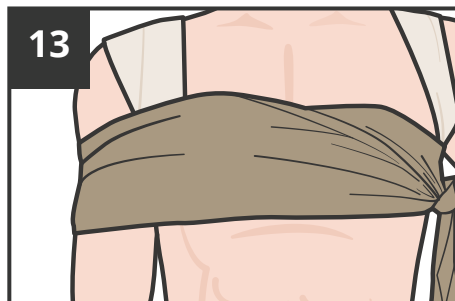
WRAP elastic bandage across, back and under the opposite armpit, anchoring around the opposite shoulder in a "figure 8" pattern.



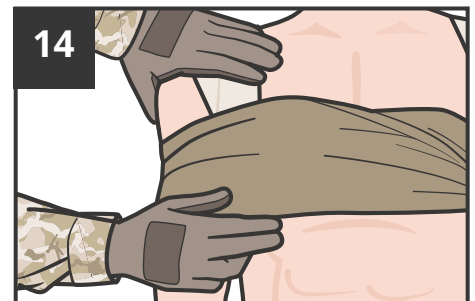
Depending on the bandage used, **SECURE** with the closure bar or tie tails of elastic bandage with a nonslip knot.



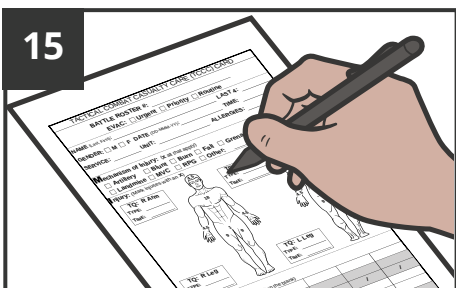
SECURE pressure (elastic) bandage tails and knot using tape, wrapping a minimum of 1½ times around the knot.



SWATH the upper arm to the side of the chest using a cravat.



CONTINUE TO ASSESS wound for further bleeding.



DOCUMENT all findings and treatments on the DD Form 1380 TCCC, Casualty Card an attach it to casualty.

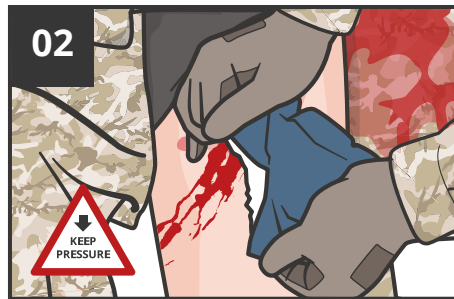
STEP 09 NOTE: If using an elastic bandage without a closure bar, leave a tail on the posterior side of the casualty.

INGUINAL (GROIN) HEMORRHAGE CONTROL

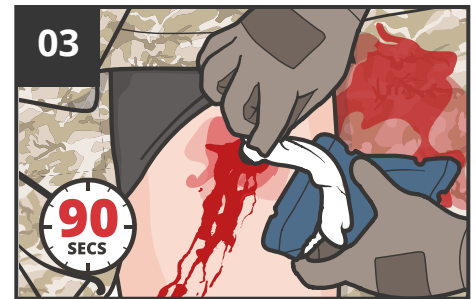
with improvised junctional pressure device



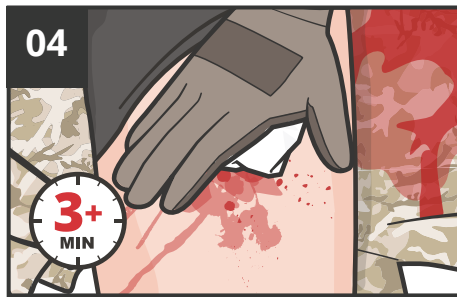
EXPOSE the injury and assess the bleeding source.



APPLY DIRECT PRESSURE to the wound using a hand, fist or elbow and open the hemostatic gauze package.



TIGHTLY PACK wound with hemostatic gauze until wound cavity is filled (finishing the packing within 90 seconds).



HOLD pressure for minimum of 3 minutes.



REASSESS to ensure bleeding has been controlled while maintaining pressure.

IF BLEEDING HAS NOT BEEN CONTROLLED:

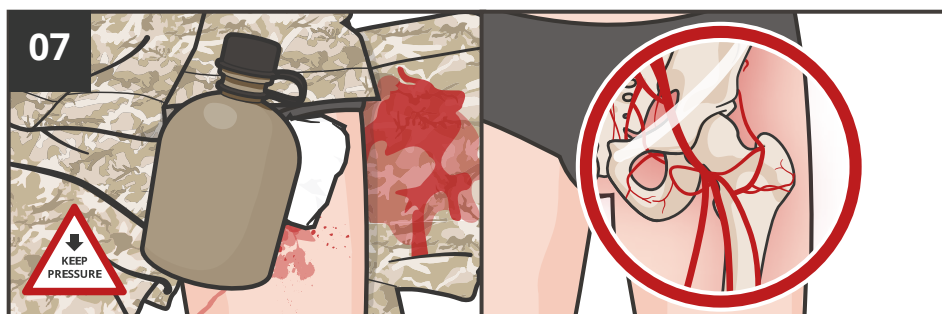
06a

If packed with hemostatic dressing, remove and repack starting at **STEP 03**.

OR

06b

If packed with gauze, apply additional gauze and pressure (for 3 min) until bleeding stops.



SELECT and **POSITION** a PDD into the inguinal gutter while maintaining pressure.



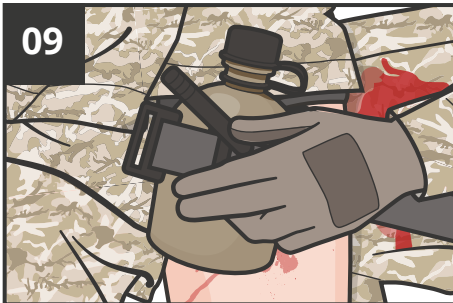
SELECT a tourniquet that can wrap around the casualty's waist/hip area or connect two tourniquets together.

Continued on next page...

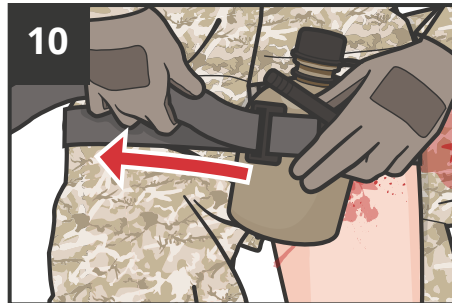
INGUINAL (GROIN) HEMORRHAGE CONTROL

with improvised junctional pressure device

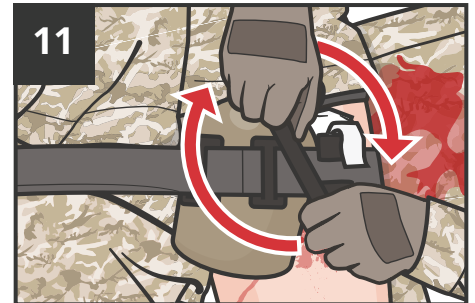
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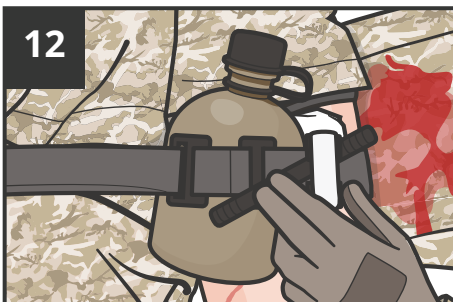
PLACE windlass or ratchet tourniquet directly over the middle of the PDD; ensure routing buckle is located towards middle of the body.



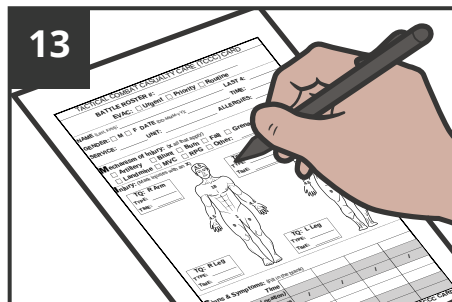
REMOVE all slack from the band or strap using a pushing motion across the casualty's body before tightening the tourniquet.



TIGHTEN the tourniquet until bleeding has stopped and the distal pulse has been checked and is absent.



Visually **INSPECT** placement of equipment, ensuring the PDD is in place and the windlass/ratchet are properly positioned over the device.



DOCUMENT all findings and treatments on the DD1380 TCCC Casualty Card.

STEP 11 NOTE: If bleeding is not controlled and/or distal pulse (a pulse below the tourniquet) is present, remove any remaining slack in the strapping (if possible) and twist or ratchet the tourniquet device until bleeding is controlled and/or a distal pulse is absent.

WOUND PACKING AND PRESSURE BANDAGE



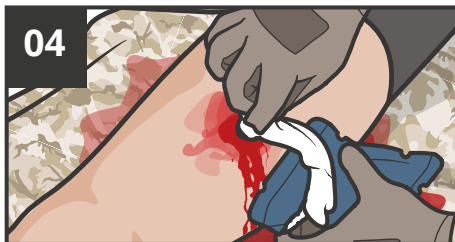
01
EXPOSE the wound, if not previously exposed.



02
LOCATE the source of the most active bleeding and apply direct pressure.



03
REMOVE the dressing from its sterile package.



04
PACK it tightly into the wound directly over the site of the most active bleeding. **Ensure the gauze extends 1-2 inches above the skin.**



05
After packing **HOLD** pressure for minimum of 3 min.



06
REASSESS to ensure bleeding has been controlled while maintaining pressure.

IF BLEEDING HAS NOT BEEN CONTROLLED:

07a If packed with hemostatic dressing, remove and repack starting at **STEP 03**.



07b If packed with gauze, apply additional gauze and pressure (for 3 min) until bleeding stops.



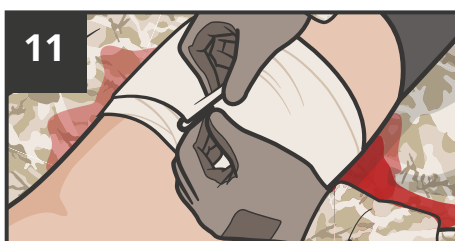
08
REMOVE the pressure bandage from the pouch and packaging.



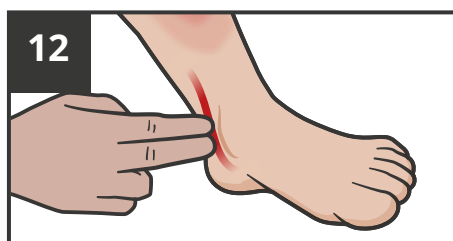
09
PLACE the bandage pad over the wound, or dressing applied, by applying pressure.



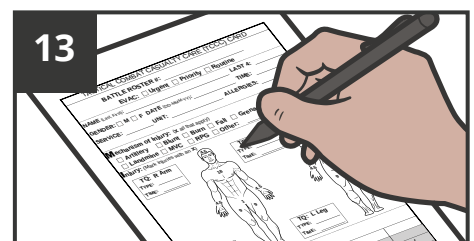
10
WRAP tightly around the extremity ensuring that the edges of the pad are covered.



11
SECURE Velcro or closure bar onto the last bandage wrap.



12
CHECK for circulation by feeling for a distal pulse.



13
DOCUMENT all findings and treatments on the DD1380 TCCC Casualty Card.

HEAD-TILT/CHIN-LIFT

NOTE: DO NOT use if a spinal or neck injury is suspected.



ROLL the casualty onto their back, if necessary, and **PLACE** them on a hard, flat surface.



KNEEL at the level of the casualty's shoulders. **POSITION** yourself at the casualty's side.



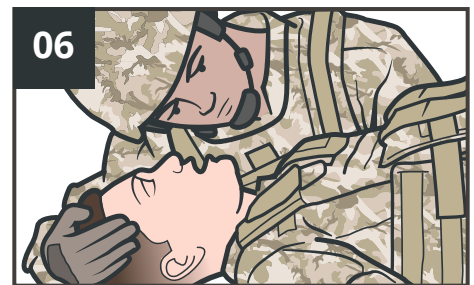
OPEN the mouth and **LOOK** for visible airway obstructions. **No** blind finger sweeps.



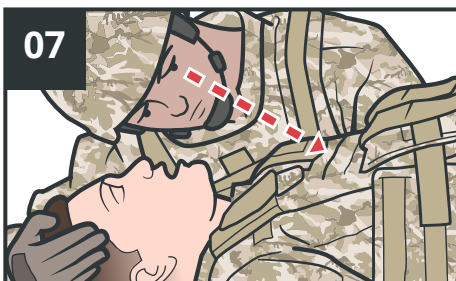
PLACE one hand on casualty's forehead. **APPLY** firm, backward pressure with the palm to tilt the head back.



PLACE fingertips of the other hand under the bony part of the lower jaw and lift, bringing the chin forward.



While maintaining the open airway, **PLACE** ear over mouth and nose, looking toward chest and stomach.



LOOK for the chest to rise and fall.



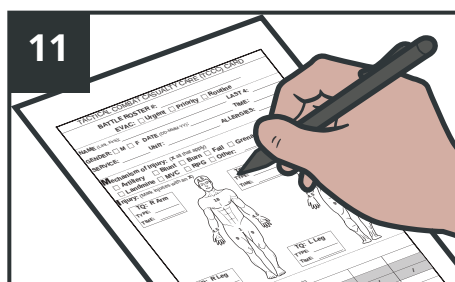
LISTEN for air escaping during exhalation.



FEEL for the flow of air on the side of your face.



MEASURE the respiratory rate.



DOCUMENT all findings and treatments on the DD Form 1380 TCCC Casualty Card.

JAW-THRUST MANEUVER

NOTE: Use this technique when neck/spine injury is suspected.



ROLL the casualty onto their back, if necessary, and place them on a hard, flat surface.



KNEEL above the casualty's head (looking toward the casualty's feet).



OPEN the mouth and look for visible airway obstructions. **REMOVE** any if possible.



REST elbows on the ground or floor.

PLACE hands either side of lower jaw below the ears.

STABILIZE the casualty's head with your forearms.



Using index fingers, **PULL** jaw up while using thumbs to **PUSH** casualty's chin forward.



Keeping airway open, **PLACE** ear over mouth and nose, looking toward chest and stomach.



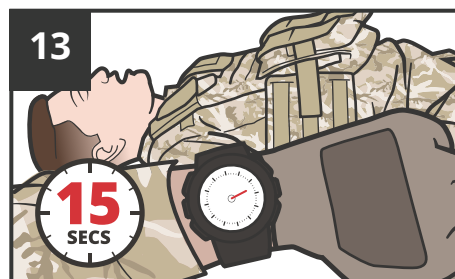
LOOK for the chest to rise and fall.



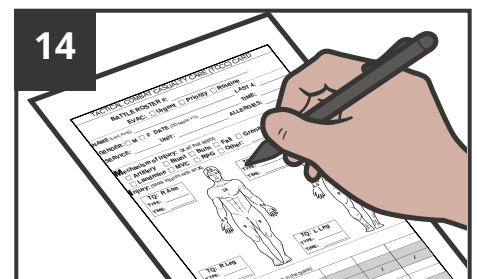
LISTEN for air escaping during exhalation.



FEEL for the flow of air on the side of your face.

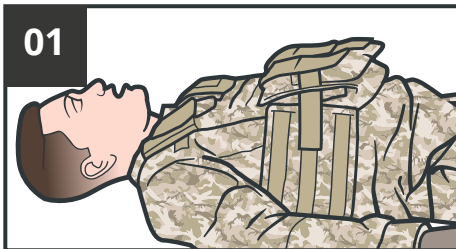


MEASURE the respiratory rate.



DOCUMENT all findings and treatments on the DD Form 1380 TCCC Casualty Card.

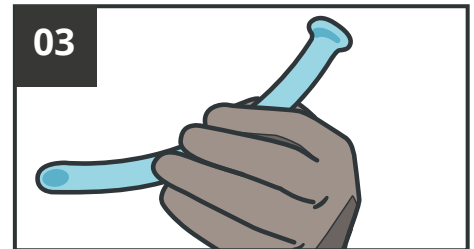
NASOPHARYNGEAL AIRWAY (NPA) INSERTION



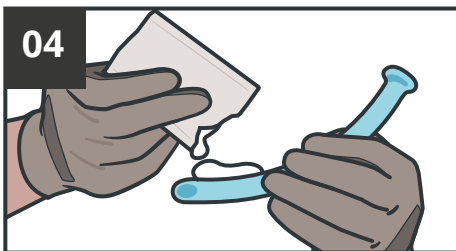
01 **PLACE** the casualty supine (on their back) with their head in a neutral position.



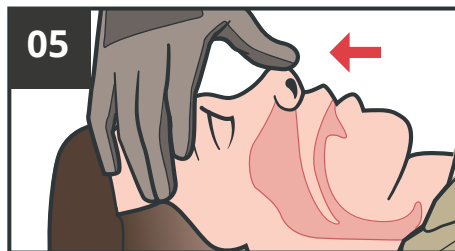
02 **INSPECT** nose and nasal passages for obstructions preventing insertion of NPA.



03 **OPEN** the NPA device in the casualty's JFAK.



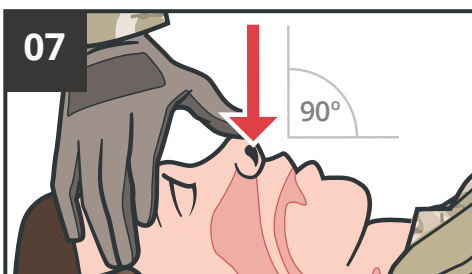
04 **LUBRICATE** end of NPA device with the sterile water-based lubricating jelly found in the JFAK or with water.



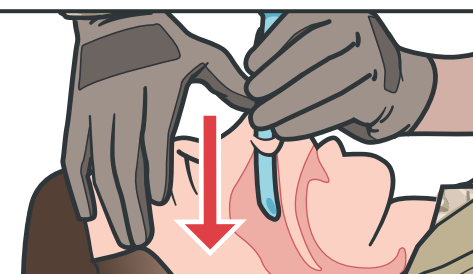
05 **EXPOSE** opening of casualty's right nostril by pushing the tip of the nose upward gently ("piggy the nose").



06 **POSITION** tube so that the beveled (open) end faces toward the septum (the strip of skin separating the nostrils).



07 **INSERT** NPA device into the right nostril (at a 90-degree angle to the casualty's face).



08 **PUSH** NPA toward the ground (**not** toward the top of the head) using a fluid movement...



until the flange (flared end) is flush with the nostril.

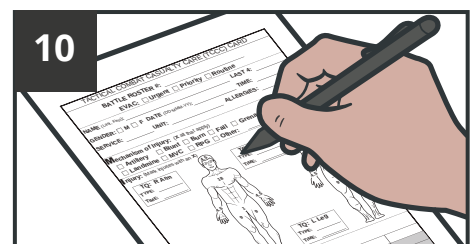
CAUTION: Never force the NPA into the nostril. If resistance is met, attempt a slight twisting motion and try to gently reinsert. If successful, but the casualty gags or chokes, pull the NPA out slightly and leave it in place. If unsuccessful, pull the NPA completely out and attempt to insert it into the left nostril.



08 **REASSESS** breathing and respiration by using the **LOOK, LISTEN**, and **FEEL** technique.



09 **POSITION** casualty in either a sitting or recovery position.



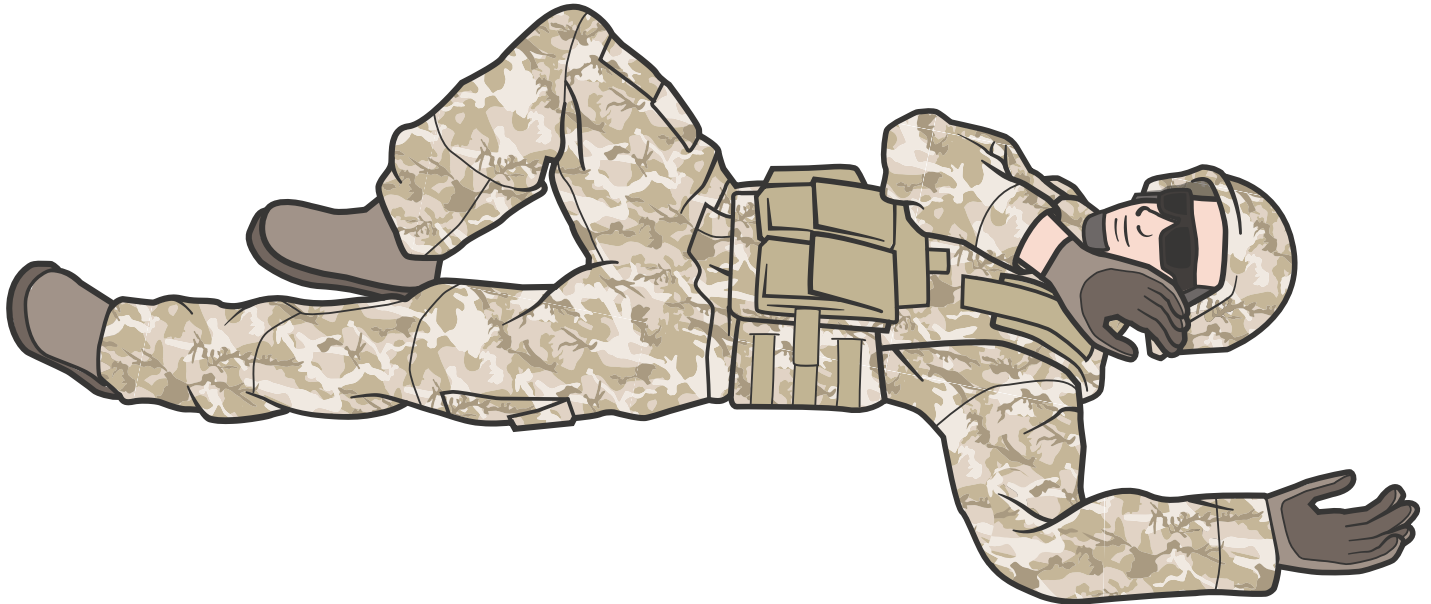
10 **DOCUMENT** all findings and treatments on the DD1380 TCCC Casualty Card and attach to casualty.

RECOVERY POSITION

01 POSITION casualty supine (on their back) without causing any further injuries.

02 PLACE casualty's arm at right angle to the body, bent at the elbow with the hand pointing upward.

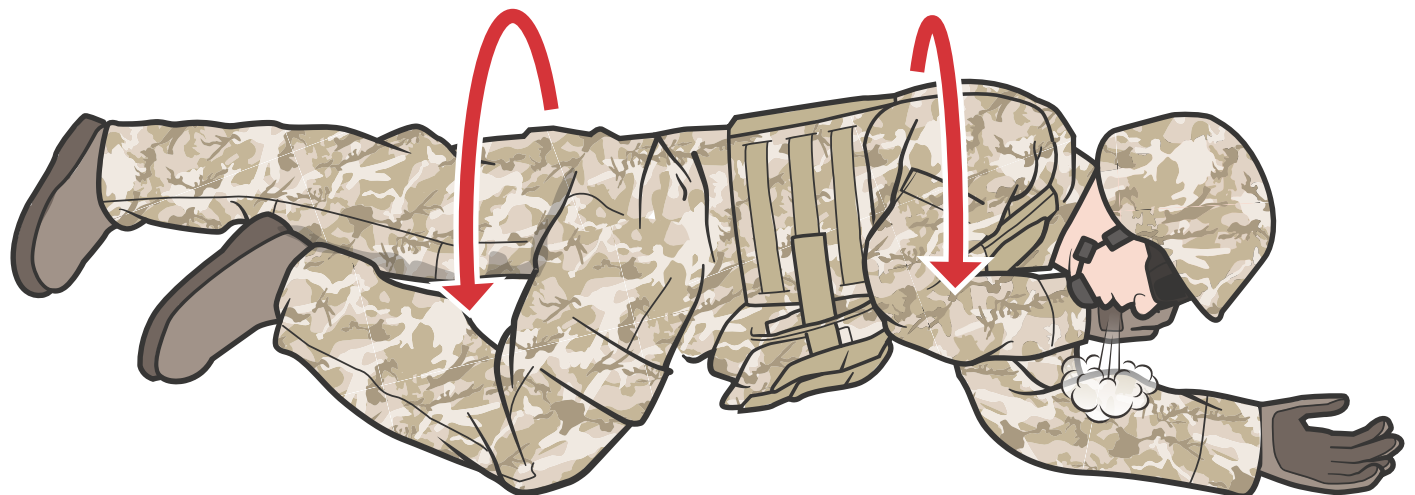
03 PLACE the back of casualty's hand against the opposite cheek.



04 Keep your hand there to **GUIDE** and **SUPPORT** the casualty's head as you roll them.

05 PULL casualty's knee up so that the leg is bent and foot is flat on the floor.

06 Gently **PULL** the casualty's knee toward you so the casualty rolls over onto their side facing you.

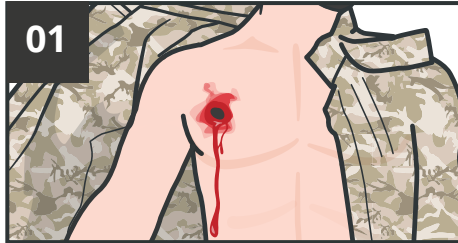


07 MOVE bent leg in front of the casualty's body so that it is resting on the floor.

08 Gently **RAISE** the casualty's chin to tilt their head back slightly.

09 DOCUMENT all findings and treatments on the DD Form 1380 TCCC Casualty Card.

CHEST SEAL



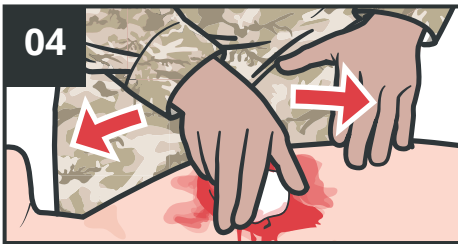
01
EXPOSE and uncover any chest wounds.



02
PLACE hand or back of hand over open chest wound to create a temporary seal.



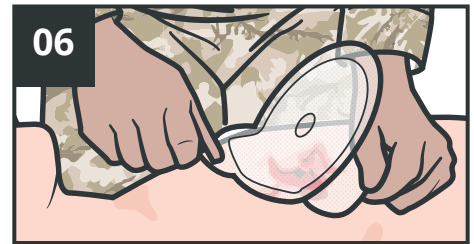
03
Fully **OPEN** the outer wrapper of the commercial chest seal or other airtight material.



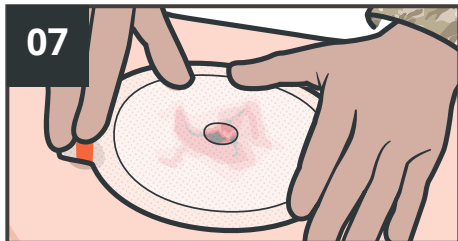
04
REMOVE gauze from chest seal package to wipe away any dirt, blood, or other fluid.



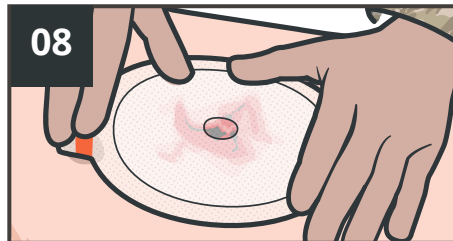
05
PEEL OFF the protective liner, exposing the adhesive portion of the seal.



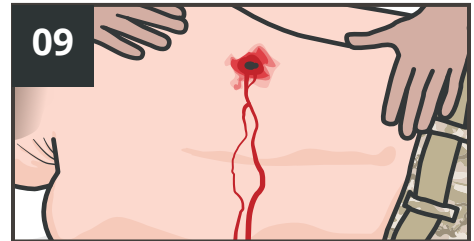
06
PLACE adhesive side directly over hole as casualty exhales, pressing firmly to seal.



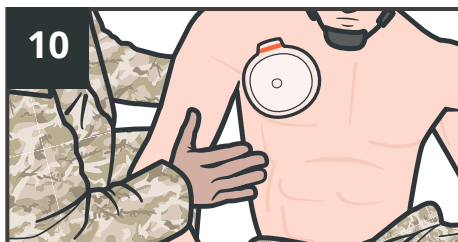
07
ENSURE the adhesive (sticky) surface of the chest seal is adhering to the skin.



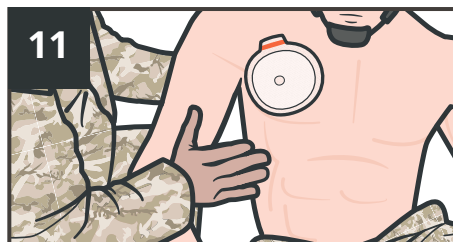
08
ASSESS the effectiveness of the vented chest seal when the casualty breathes.



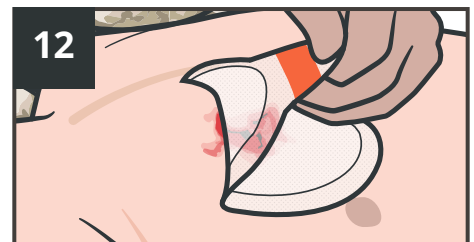
09
ROLL the casualty looking for additional open wounds (chest, under the arms, and back).



10
PLACE conscious casualty into a sitting position or an unconscious casualty in the recovery position (with their injured side down).



11
MONITOR for signs of a tension pneumothorax.



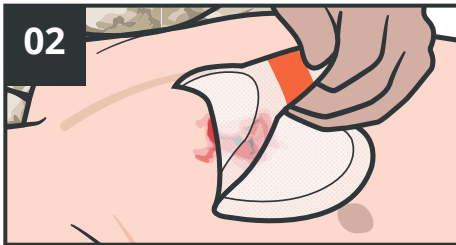
If signs of a tension pneumothorax develop, **LIFT** one edge of the seal and allow the tension it to decompress ("burping" the seal), then **PRESS** chest seal down firmly to recreate the seal.

13 If signs of a tension pneumothorax persist despite burping the seal, **PERFORM** a needle decompression of the chest (see Needle Decompression of the Chest Instruction).

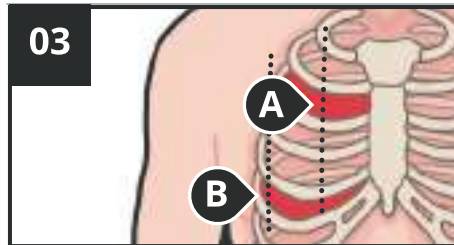
14 **DOCUMENT** all findings and treatments on the DD Form 1380 TCCC Casualty Card and attach it to the casualty.

NEEDLE DECOMPRESSION OF THE CHEST (NDC)

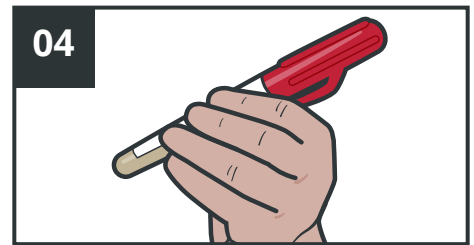
01 **ASSESS** the casualty for signs of suspected tension pneumothorax.



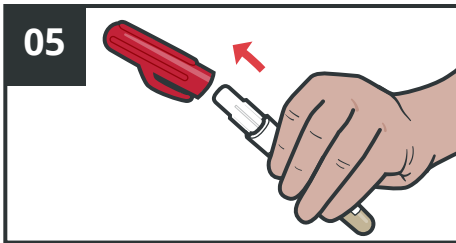
If a chest seal was previously applied, **BURP** or **REPLACE** the chest seal (if improperly applied).



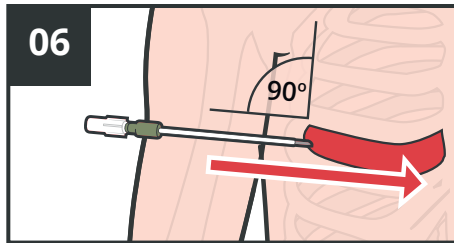
03 **IDENTIFY** the site for needle insertion.



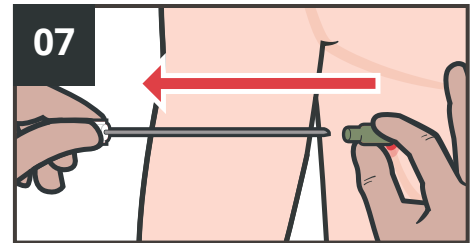
04 **USE** appropriate needle catheter (either 10 or 14 gauge, 3¼ inches).
NOTE: If available, use antiseptic solution or a pad to clean the site.



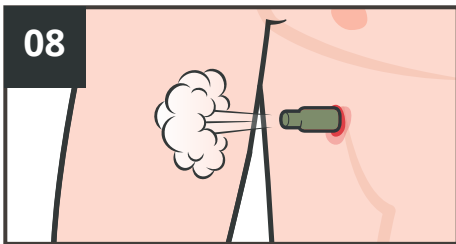
05 **REMOVE** the Luer lock cap from the needle catheter (if applicable).



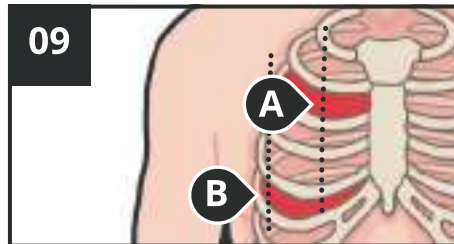
06 **INSERT** needle just over top of lower rib at insertion site, at a 90-degree angle to the curvature of the chest, and not the ground.



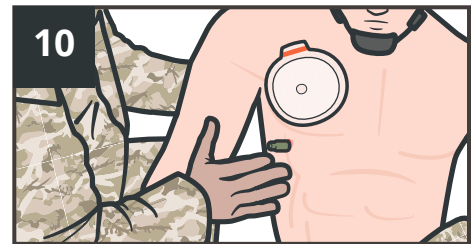
07 **LEAVE** in place for 5–10 sec before removing the needle, leaving the catheter in place.



08 **ASSESS** for successful needle decompression.
NOTE: You should hear air escaping the chest. Respiratory distress improves.



09 If the NDC is not helpful, **PERFORM** another NDC using a new needle on the second site, same side.



10 **PLACE** the casualty in the sitting position or recovery position with injured side down.

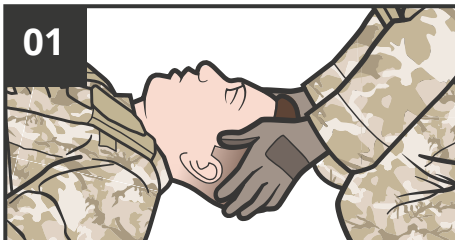
11 Continue to **REASSESS** the casualty for reoccurrence of progressive respiratory distress.

12 If the initial NDC was successful, but symptoms later recur, then **PERFORM** another NDC at the same site that was used previously. Use a new needle/catheter unit for the repeat NDC.

13 If the second NDC is also not successful, then continue onto the Circulation section of the MARCH (Massive bleeding, Airway, Respiration, Circulation, Hypothermia/Head) sequence.

14 **DOCUMENT** all findings and treatments on the DD Form 1380 TCCC Casualty Card.

ONE-PERSON BAG VALVE MASK (BVM)



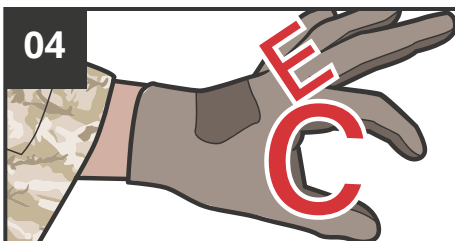
01 **POSITION** yourself at the top of the patient's head.



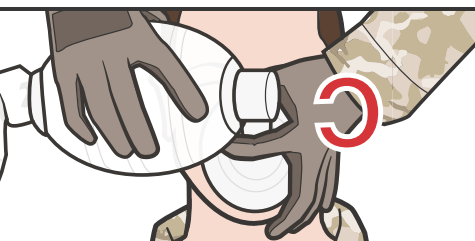
02 **INSERT** a nasopharyngeal airway (NPA).



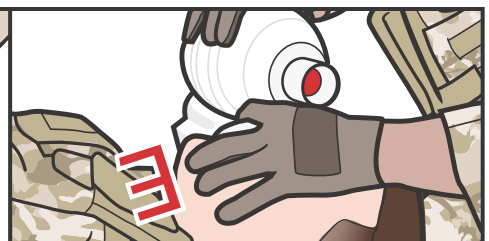
03 **ASSEMBLE** the BVM (connect the mask to port on the bag).



04 **PERFORM** an "EC" technique to hold the mask in place over the patient's mouth by using this procedure:



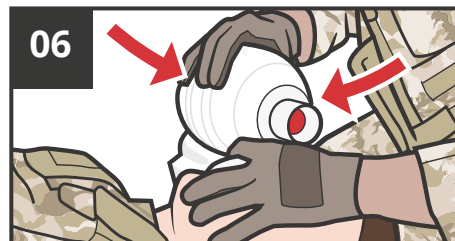
05 **FORM** a "C" by placing your thumb over the part of the mask covering bridge of the nose and your index finger over the part covering the left of the chin.



Seal mask firmly onto face by pushing down with thumb and index finger. While pulling up on the mandible, **FORM** the "E", opening the airway through the head-tilt, chin-lift maneuver.



07 **MAINTAIN** a seal with one hand using firm pressure to hold the mask in position and seal over the patient's mouth.



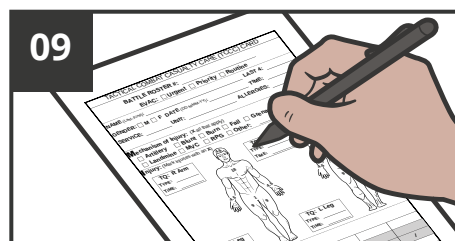
08 **SQUEEZE** the bag with your other hand for 1-2 seconds while observing the chest rise to make certain lungs are inflating effectively.



09 **CONTINUE SQUEEZING** the bag once every five to six seconds (10-12 breaths/minute).



10 **CONTINUE** ventilation, observe for spontaneous respirations, and periodically check the pulse.



11 **DOCUMENT** all findings and treatments on the DD Form 1380 TCCC Casualty Card and attach it to the casualty.

STEP 06 NOTE: Alternatively, the bag may be compressed against your body or forearm to deliver a greater tidal volume to the patient or help with hand fatigue.

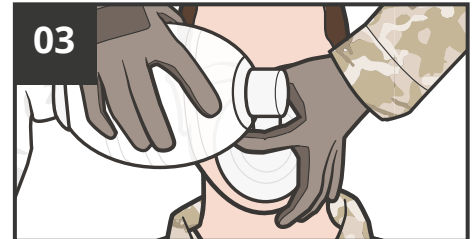
TWO-PERSON BAG VALVE MASK (BVM)



01 **POSITION** yourself at the top of the casualty's head.



02 **INSERT** a nasopharyngeal airway (NPA).



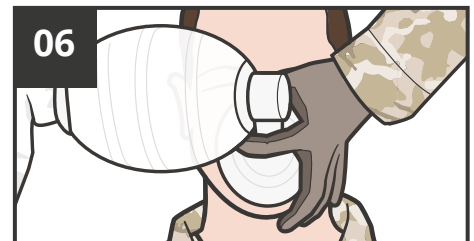
03 **PLACE** the mask over the casualty's mouth and nose.



04 **PLACE** your little, ring, and middle fingers along the mandible (lower jaw).



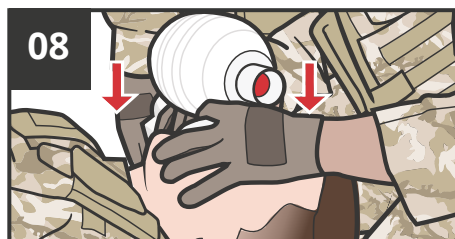
05 **PLACE** your thumb on the upper portion of the mask above the valve connection.



06 **PLACE** your index finger on the lower portion of the mask under the valve connection.



07 With your other hand, **DUPLICATE** the above steps on the other side (mirror image).

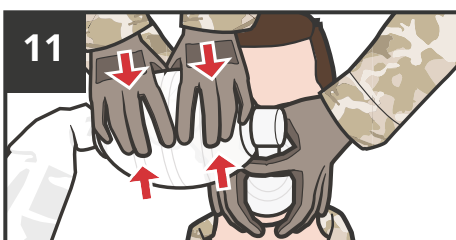


08 **HOLD** the mask in place with both hands to achieve a leakproof seal.



09 Second rescuer slowly **SQUEEZES** BVM with two hands for 1-2 secs until the chest rises.

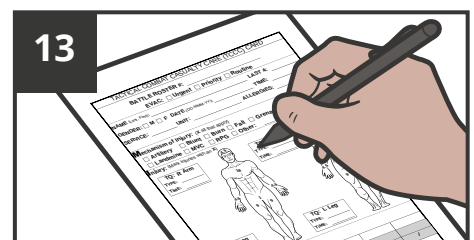
10 **OBSERVE** for rise and fall of the patient's chest.
(a) If the chest does not rise, reposition the mask to ensure a good seal.
Tilt the head and lift the chin to open the airway.
(b) If the chest rises and falls, continue with step 11.



11 **SQUEEZE** once every 5-6 secs (10-12 breaths/min).



12 **CONTINUE** ventilations, observe for spontaneous respirations, and periodically check the pulse.



13 **DOCUMENT** all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.

HYPOTHERMIA TREATMENT

01 **MINIMIZE** the casualty's exposure to the elements.

02 **ENSURE** bleeding is controlled and assess for hemorrhagic shock.

03 **OPEN** the active heating device and/or passive warming materials and remove the device or blanket.

04 **EXPOSE** any active heating device to air (per manufacturers' guidance).

05 **REMOVE** any wet clothing, replacing with dry clothes/ other dry materials, if possible.

06 If applicable, **REMOVE** and **OPEN** warming shell completely, place casualty centered on it.



STEP 02 NOTE: Signs of hemorrhagic shock can include severe blood loss, altered mental status in the absence of a head injury, weak or absent radial (wrist) pulse, rapid or shallow breathing, pale skin or blotchy blue as shock progresses, sweaty but cool skin, confusion, restlessness or nervousness, nausea, and/or vomiting.

07 **APPLY** the active heating device to the casualty.
CAUTION: Do not place active heating device directly on the skin.

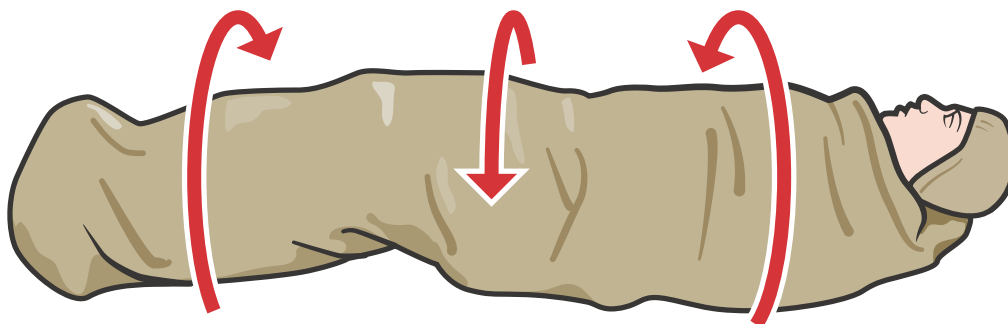
08 If active heating device not available, **PLACE** passive warming materials (blanket, etc.) around casualty.

09 **WRAP** entire passive warming materials completely around the casualty, incl. the head.
NOTE: Do not cover up the casualty's face.

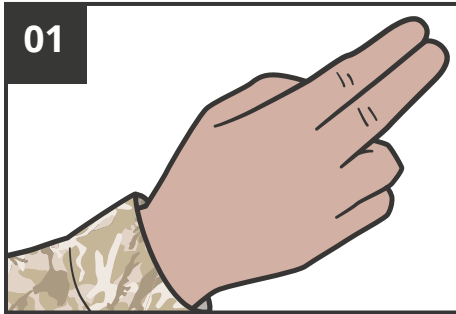
10 **SECURE** the shell/blanket with tape.

11 **MONITOR** the casualty closely for life-threatening conditions.

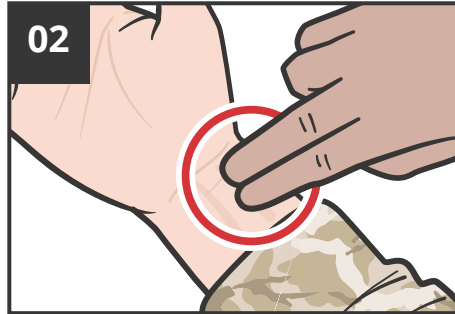
12 **DOCUMENT** all findings and treatments on a DD Form 1380 TCCC Casualty Card.



RADIAL PULSE ASSESSMENT



ALIGN the middle and index fingers of your dominant hand.



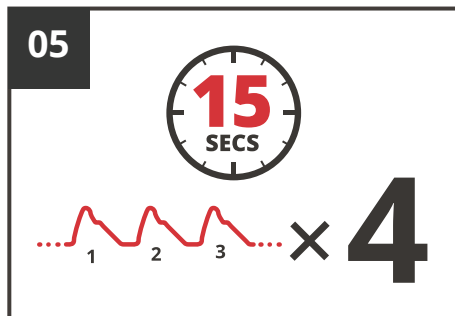
PLACE your fingers next to this ligament on the same side as the casualty's thumb.



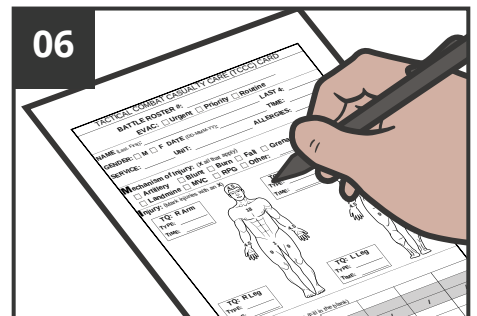
PRESS your fingers into the hollow space to feel the radial artery beneath the skin.



With a timing device, **COUNT** the beats of the pulse for 15 seconds.



MULTIPLY that number by four and you will have the casualty's pulse rate (in beats/minute).



DOCUMENT all findings and treatments on the DD Form 1380 TCCC Casualty Card.

STEP 02 NOTE: If your fingers are on the hard surface of the wrist bones, move them down and along the ligament until they reach a softer area.

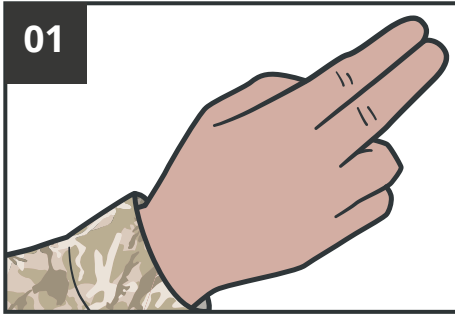
STEP 04 NOTES

NOTE: If you cannot feel the pulse, press a little harder, being careful not to hurt the casualty.

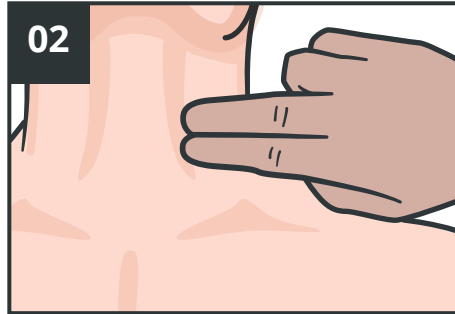
NOTE: If you are still having trouble locating the radial artery, slide your fingers up and along the ligament until you reach the bottom of the wrist bones.

NOTE: At the point where the hollow space meets the wrist bones, the pulse is easier to feel.

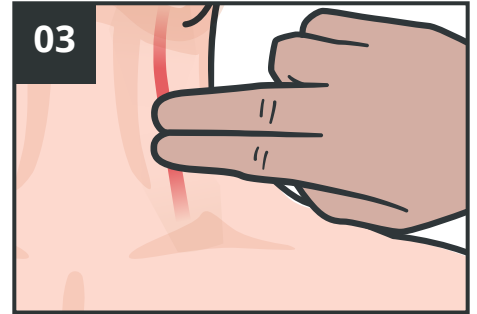
CAROTID PULSE ASSESSMENT



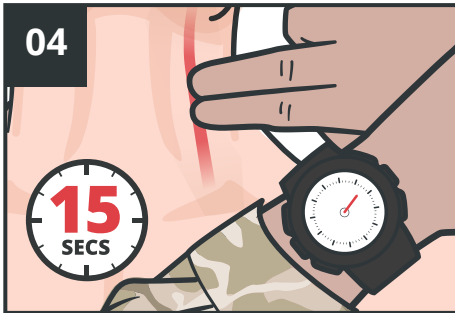
ALIGN the middle and index fingers of your dominant hand.



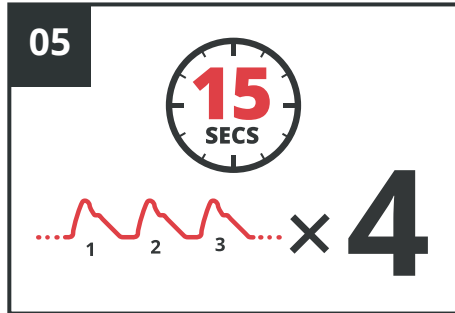
PUT your middle and index finger on side of the casualty's neck, to the side of the windpipe, to find the carotid artery.



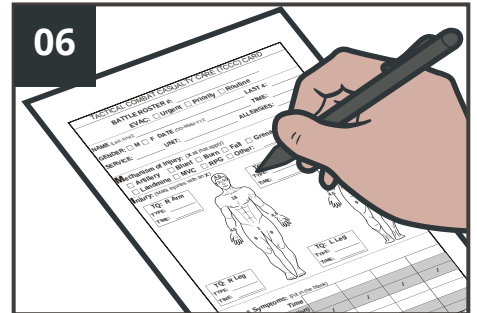
PRESS your fingers into the hollow space to feel the carotid artery beneath the skin.



When you succeed in finding the pulse, **COUNT** the beats of the pulse for 15 seconds with a timing device.



MULTIPLY that number by four, and you will have the casualty's pulse rate (in beats/minute).



DOCUMENT all findings and treatments on the DD1380 TCCC Casualty Card.

STEP 03 NOTE: If you cannot feel the pulse, press a little harder, being careful not to hurt the casualty.

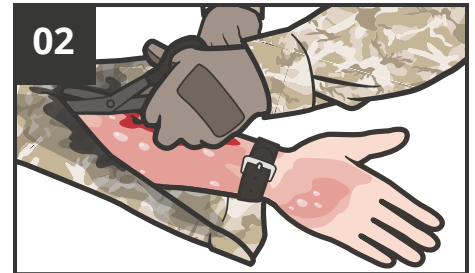
CAUTION: Be careful not to press too hard over the carotid artery, as this can cause your patient to become lightheaded.

BURN TREATMENT

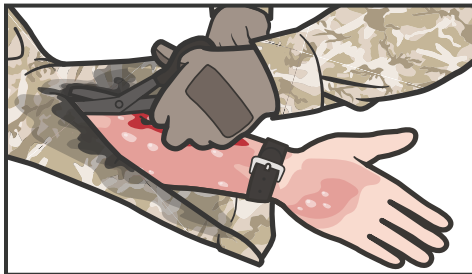
NOTE: All medical interventions can be performed, even if the patient is burned.



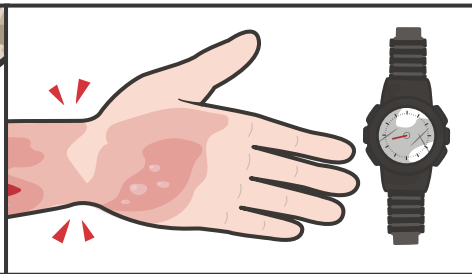
ELIMINATE the source of the burn.



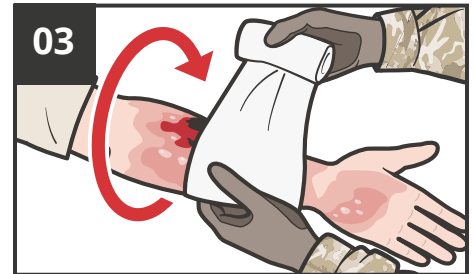
UNCOVER the burn after the casualty has been removed from the source of the burn.



- a Cut clothing around the burned area.
- b Gently lift clothing away from burned area.



- c If the casualty's hand(s) or wrist(s) have been burned, remove jewelry (rings, watches).

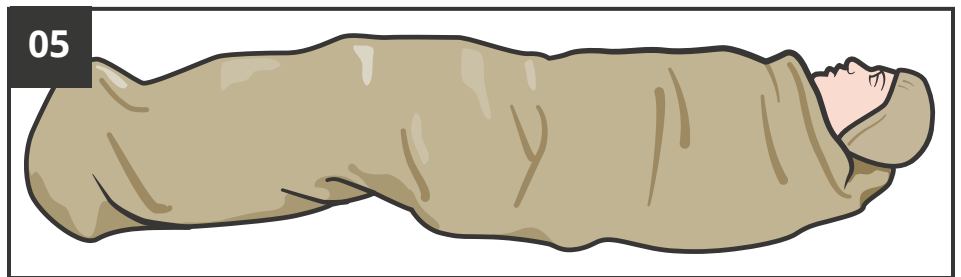


APPLY sterile, dry dressings to burned skin areas.

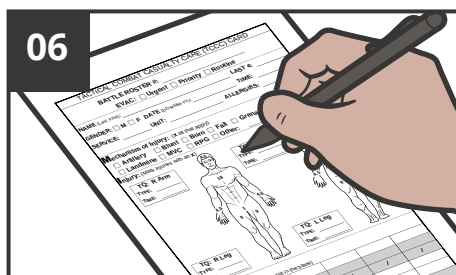
CAUTION: Do not force clothing off that is stuck to burnt skin.



Keep the casualty warm and **PREVENT** hypothermia.



MONITOR casualty closely for life-threatening conditions, check for other injuries, and treat for shock (if applicable).



DOCUMENT all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.

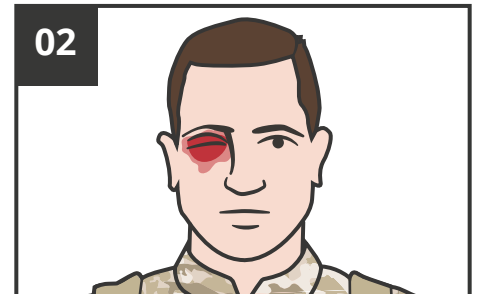
PENETRATING EYE INJURY



01
PLACE the casualty in a comfortable position, one that allows you access to their eye (head).

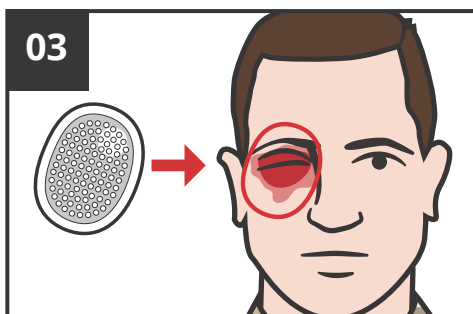


02
REMOVE their headgear, if necessary.

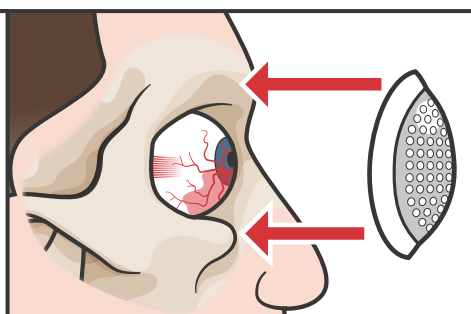


03
EXAMINE the eyes for any deformities, contusions, abrasions, penetrating objects, bruising (black eye(s)), lacerations, or swelling.

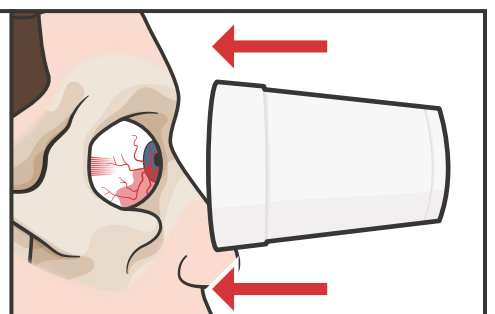
NOTE: Perform a rapid field test of visual acuity.



04
COVER the casualty's injured eye with a rigid eye shield (not a pressure patch).



NOTE: The eye shield is designed to rest on the bony prominence of the face arching over the eye structures.



NOTE: In the absence of an eye shield, other objects such as SAM splints, Styrofoam, or plastic cups can effectively perform the same function.

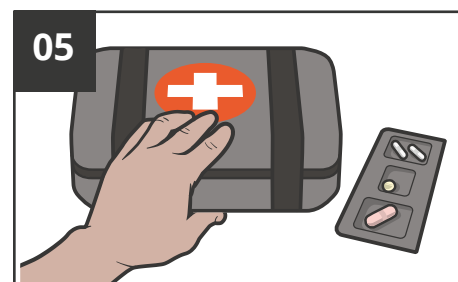
NOTE: Do not cover other eye (unless also injured).

NOTE: For protruding/impaied object in eye, cut a hole in the eye shield for the object to fit through and secure in place. If you cannot cut the eye shield, place a bulky dressing around the penetrating object.

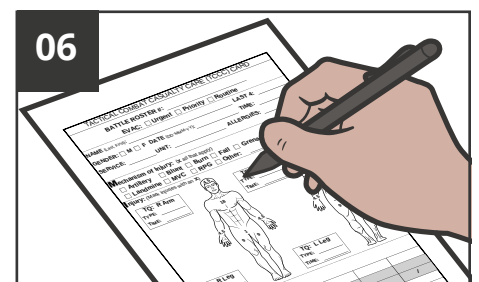
CAUTION: Ensure that the rigid eye shield or improvised object is not in contact with the contents of the eye socket or exerting any pressure on the eye. If the eye shield exerts pressure, use an improvised eye shield.



07
SECURE the rigid eye shield with tape at a 45-degree angle across the forehead and cheek.

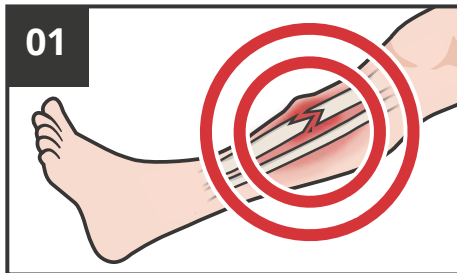


08
If the casualty is conscious, **ADMINISTER** the Combat Wound Medication Pack (CWMP).



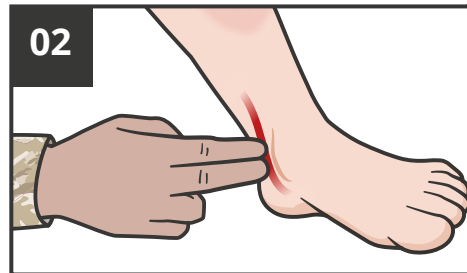
09
DOCUMENT all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.

SPLINT APPLICATION

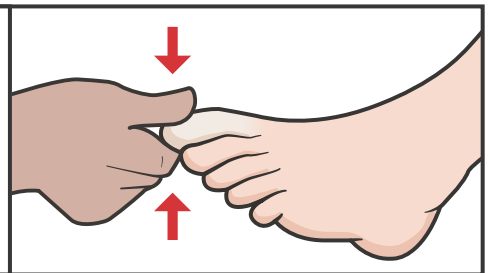


01 **IDENTIFY** the location of the fracture.

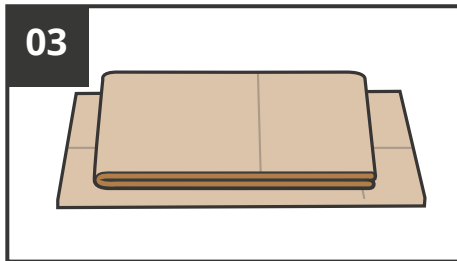
NOTE: Have the casualty or someone else manually stabilize the area.



02 Before applying the splint, **CHECK** the distal pulse (pulse below the fracture)...

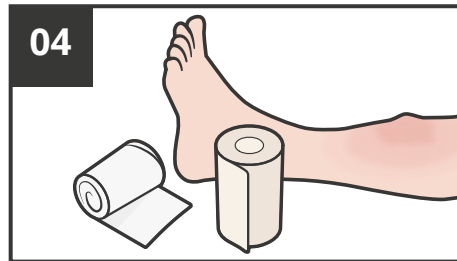


and capillary refill (color returning to the nail bed after pressing on it) on the injured extremity.

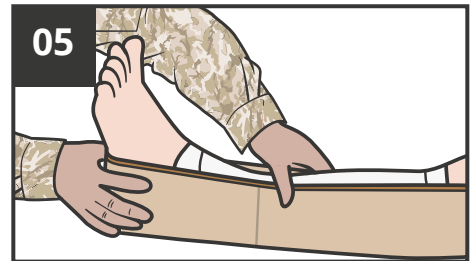


03 **PREPARE** the splint materials for application.

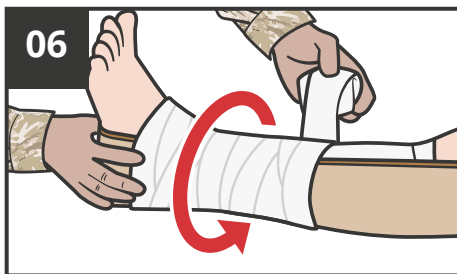
NOTE: Measure and shape the splint on the opposing uninjured extremity.



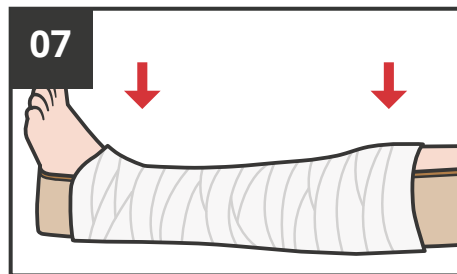
04 **PREPARE** securing materials (cravats, elastic wraps/bandages, etc.)



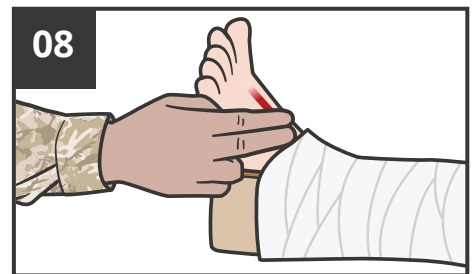
05 **APPLY** the splint to the injured extremity with the limb, in the position of function (a normal resting position), if possible.



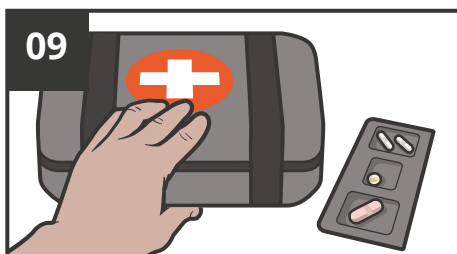
06 **SECURE** the splint in place with appropriate materials.



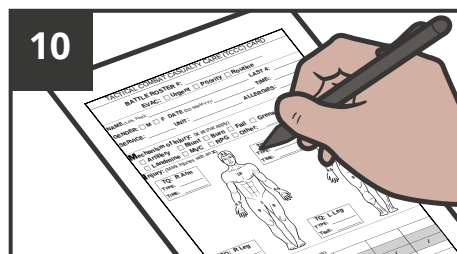
07 **ENSURE** the joints above and below the fracture are immobilized in the splint whenever possible.



08 **RECHECK** the distal pulse after applying the splint. If the pulse is not palpable, loosen the splint, reposition, and reapply the splint.



09 If the casualty has pain, severe combat wounds, and is conscious and can swallow, **ADMINISTER** all pills (pain medication and antibiotics) from the CWMP with water.



10 **DOCUMENT** all findings and treatments on a DD Form 1380 TCCC Casualty Card and attach it to the casualty.

9-LINE MEDEVAC AND MIST PREPARATION

LINE 01	Location of the pickup site (8-digit grid coordinate)
LINE 02	Radio frequency, call sign, and suffix
LINE 03	Numbers of patients by precedence A. Urgent B. Urgent Surgical C. Priority D. Routine E. Convenience NOTE: If using 2 or more categories, insert word "break" between each category
LINE 04	Special equipment required A. None B. Hoist C. Extraction equipment D. Ventilator
LINE 05	Numbers of patients by type (Encrypt this using brevity codes): L+# = number of Litter patients A+# = number of Ambulatory patients NOTE: If requesting MEDEVAC for both, insert word "break" between each entry
LINE 06	WARTIME: Security of the pickup site N = No enemy troops in the area P = Possible enemy troops in the area E = Enemy troops in the area, approach with caution X = Enemy troops in area, armed escort required PEACETIME: Number and type of wound, injury or illness
LINE 07	Method of marking pickup site A = Panels B = Pyrotechnic signal C = Smoke signal D = None E = Other
LINE 08	Patient Nationality and status (Encrypt this using brevity codes) A = US Military B = US Civilian C = Non-US Military D = Non-US Civilian E = Enemy Prisoner (EPW)
LINE 09	WARTIME: CBRN Contamination (Encrypt this using brevity codes) N = Nuclear B = Biological C = Chemical PEACETIME: Number and type of wound, injury or illness

Prepare a MIST Report

- M** Mechanism of injury and time of injury (if known)
- I** Injury or illness
- S** Symptoms and vital signs
- T** Treatment given

DD 1380 TCCC CASUALTY CARD

A CASUALTY DETAILS

Fill in casualty's personal info and unit details along with the date (DD-MM-YY) and the time of injury. Use a 24-hour clock indicating local (L) or zulu (Z) time (e.g., "1300Z").

Battle Roster # consists of the initials of casualty's first and last name, followed by the last four digits of casualty's Social Security number (found on dog tag). (e.g., John Doe. John Doe 123-12-1234 = #JD1234).

Urgent (evac <1 hr)

Evac within one hour to prevent loss of life, limb, or eyesight.

Priority (<4 hrs)

Evac within 4 hours to prevent condition from worsening and becoming urgent.

Routine (<24 hrs)

For all other situations, but still accomplished within 24 hrs.

B DETAILS OF INJURY

Mechanism of injury: Mark an "X" on the mechanism of injury (or cause of injury e.g., artillery, blunt, burn, fall, grenade, gunshot wound (GSW), improvised explosive device (IED), landmine, motor vehicle crash/collision (MVC), rocket-propelled grenade (RPG), other (specify)).

Injury:

Mark all that apply. Mark injury sites on the body picture using an "X". For burn injuries, circle the burn percentage(s) on the figure. If multiple mechanisms of injury and multiple injuries, draw a line between the mechanism of injury and the anatomical site of the injury.

If a tourniquet is applied to an arm or leg, write type of tourniquet used and the time of tourniquet application in the box that corresponds to the tourniquet location.

C SIGNS & SYMPTOMS

Make a record of vital signs (*pulse rate and location, blood pressure, respiratory rate, oxygen saturation*) indicating time of reading above.

Record level of consciousness (**AVPU**: Alert, responds to Verbal stimulus, responds to Pain stimulus, Unresponsive), and level of pain (*on numeric rating scale of 0 to 10, with 0 being no pain and 10 being the worst pain*) with time.

TACTICAL COMBAT CASUALTY CARE (TCCC) CARD					
BATTLE ROSTER #: _____				A	
EVAC: ☐ Urgent ☐ Priority ☐ Routine					
NAME (Last, First): _____		LAST 4: _____			
GENDER: ☐ M ☐ F		DATE (DD-MMM-YY): _____			
SERVICE: _____		UNIT: _____		ALLERGIES: _____	
Mechanism of Injury: (X all that apply)					B
☐ Artillery ☐ Blunt ☐ Burn ☐ Fall ☐ Grenade ☐ GSW ☐ IED ☐ Landmine ☐ MVC ☐ RPG ☐ Other: _____					
Injury: (Mark injuries with an X)					
TQ: R Arm TYPE: _____ TIME: _____		TQ: L Arm TYPE: _____ TIME: _____			
TQ: R Leg TYPE: _____ TIME: _____		TQ: L Leg TYPE: _____ TIME: _____			
Signs & Symptoms: (Fill in the blank)					
Time					
Pulse (Rate & Location)					
Blood Pressure	/	/	/	/	
Respiratory Rate					
Pulse Ox % O2 Sat					
AVPU					
Pain Scale (0-10)					

DD Form 1380, JUN 2014

TCCC CARD

DD 1380 TCCC CASUALTY CARD

D BATTLE ROSTER

Battle Roster # consists of the initials of casualty's first and last name, followed by last four numbers of casualty's Social Security number (found on dog tag) (e.g., John Doe. John Doe 123-12-1234 = #JD1234).

E TREATMENTS

C (Circulation – Massive Hemorrhage):

Mark an "X" for all Circulation hemorrhage control interventions.

A (Airway): Mark an "X" for all Airway interventions and write type of device(s) used.

B (Breathing): Mark an "X" for all Breathing interventions and write type of device(s) used.

C (Fluid and Blood Products):

Circulation resuscitation interventions. Write name, volume, route, and time of any fluids given.

F MEDICATIONS

Document any medications given. Write **name**, **dose**, **route**, and **time** of any analgesics, antibiotics, or other medications given.

Mark an "X" for any eye-shield limb splinting, or hypothermia treatments.

Hypothermia type would be either **active** or **passive**.

G NOTES

Use this space to record any other pertinent information and/or clarifications.

If more space is needed for documentation, attach another DD Form 1380 to the original. Label the second DD Form 1380 #2. It will show the soldier's name and unit.

H RESPONDER DETAILS

Fill in responder's personal details including last four numbers of their Social Security number.

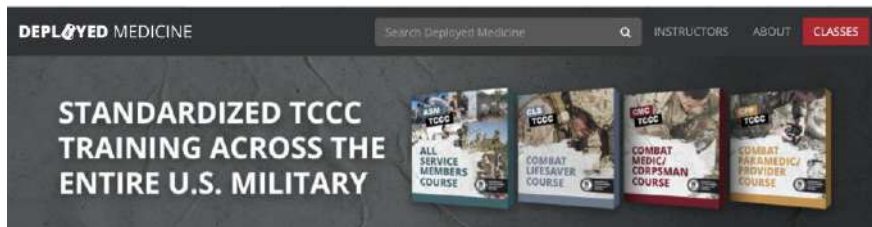
BATTLE ROSTER #: _____					D
EVAC: ☐ Urgent ☐ Priority ☐ Routine					
Treatments: (X all that apply, and fill in the blank)				Type	E
C: TQ- ☐ Extremity ☐ Junctional ☐ Truncal					
Dressing- ☐ Hemostatic ☐ Pressure ☐ Other					
A: ☐ Intact ☐ NPA ☐ CRIC ☐ ET-Tube ☐ SGA					
B: ☐ O2 ☐ Needle-D ☐ Chest-Tube ☐ Chest-Seal					
C:	Name	Volume	Route	Time	
Fluid					
Blood Product					
MEDS:					F
Analgesic (e.g., Ketamine, Fentanyl, Morphine)	Name	Dose	Route	Time	
Antibiotic (e.g., Moxifloxacin, Ertapenem)	Name	Dose	Route	Time	
Other (e.g., TXA)	Name	Dose	Route	Time	
OTHER: ☐ Combat-Pill-Pack ☐ Eye-Shield (☐ R ☐ L) ☐ Splint					
☐ Hypothermia-Prevention Type: _____					
NOTES:					G
FIRST RESPONDER					H
NAME (Last, First): _____				LAST 4: _____	
DD Form 1380, JUN 2014 (Back)					TCCC CARD

FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 01:

PRINCIPLES AND APPLICATIONS OF UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

- This course is based heavily on the United States Defense Health Agency, Joint Trauma System, Tactical Combat Casualty Care (TCCC), Combat Lifesavers Course.
- Adjustments have been made to comply with United Nations Policy.



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

Changes between TCCC and UN FMAC

- The UN equivalent to **Tactical Combat Casualty Care (TCCC)** = United Nations Tactical Combat Casualty Care (UN TCCC)
- The UN equivalent to **TCCC Combat Lifesaver** = Field Medical Assistant (FMA)
- The UN equivalent to the **TCCC 9-Liner Medical Evacuation** = UN Evacuation 4 Liner
- The UN equivalent to **TCCC DD Form 1380** = UN Casualty Card
- The UN equivalent to **TCCC CASEVAC (MEDEVAC & TACEVAC)** = UN CASEVAC
- The UN equivalent to **TCCC Joint First Aid Kit (JFAK)** = Buddy First Aid Kit (BFAK)
- The UN equivalent to **TCCC Combat Lifesaver Bag (CLS Bag)** = UN Trauma Pack (UNTP)
- The UN equivalent to **TCCC Combat / Combatant** = Peacekeeping / Peacekeeper
- The UN equivalent to **TCCC Combat Wound Medication Pack (CWMP)** = Wound Medication Pack (WMP)

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

PRINCIPLES AND APPLICATIONS OF UN TCCC

TERMINAL LEARNING OBJECTIVES

TO1 Given a combat peacekeeping or non-combat peacekeeping scenario, perform UN TCCC

EO1 Demonstrate the application of UN TCCC skills in a combat peacekeeping or non-combat peacekeeping scenario (Comprehensive Module Practical Exercise)

TO2 Describe the practice of UN TCCC

EO2 Identify the leading causes of preventable death due to traumatic injuries, and the corresponding interventions to help increase chances of survival

EO3 Describe the UN TCCC Phases of Care, and how intervention priorities differ in each phase

EO4 Describe the application of UN TCCC in combat peacekeeping or non-combat peacekeeping settings across different environments

EO5 Describe the role and responsibilities of a nonmedical UN member in rendering UN TCCC care

EO6 Identify the key factors influencing UN TCCC

EO7 Identify the importance of UN TCCC training

EO8 Identify three objectives (or goals) of UN TCCC

UN MANDATE FOR STANDARDIZED TRAINING

- Standardizes Field Medical Aid for all members
- Covers the use of standardized trauma training platforms

TCCC ONLINE RESOURCES

TCCC training and education resource is available at: www.deployedmedicine.com

It contains:

- Videos, podcasts, and resources
- Downloadable Clinical Practice Guidelines (CPGs)

COURSE CONTENTS

WHAT THIS COURSE CONTAINS

- ☐ Principles and Applications of UN TCCC
- ☐ Medical Equipment
- ☐ Care Under Fire
- ☐ Principles and Application of Tactical Field Care
- ☐ Tactical Trauma Assessment
- ☐ Massive Hemorrhage Control
- ☐ Airway Management
- ☐ Respiration Assessment and Management
- ☐ Circulation/Hemorrhage Control
- ☐ Shock Recognition
- ☐ Hypothermia Prevention
- ☐ Head Injuries
- ☐ Eye Injuries
- ☐ Analgesics and Antibiotics
- ☐ Wound Management
- ☐ Burn Treatment
- ☐ Fractures
- ☐ Casualty Monitoring
- ☐ Pre-evacuation Procedures
- ☐ Evacuation Procedures

PRINCIPLES AND APPLICATIONS OF UN TCCC

Video can be found at: www.deployedmedicine.com

PRINCIPLES AND APPLICATIONS OF UN TCCC

ROLES AND RESPONSIBILITIES OF THE FIELD MEDICAL ASSISTANT (FMA)

In a **Care Under Fire** situation the FMA:

- Must respond to suppression of hostile fire to minimize the risk of injury to personnel and minimize additional injury to previously injured UN members

In **Tactical Field Care** the FMAs:

- Must maintain security and situational awareness while continuing to tend to casualties and prepare for evacuation

PRINCIPLES AND APPLICATIONS OF UN TCCC

ROLES AND RESPONSIBILITIES OF FMA

First Responder Care (Role 1)

The first medical care that UN personnel receive is provided at Role 1 (also referred to as unit-level medical care or self-aid, buddy aid, combat lifesaver, and/or medic care). This role of care includes:

- Immediate lifesaving measures and treatment for disease and non-battle injury (DNBI) or degradation of functional capability sustained by personnel and caused by factors other than those directly attributed to combat action

PRINCIPLES AND APPLICATIONS OF UN TCCC

THE KEY FACTORS INFLUENCING UN TCCC

- Hostile fire
- Tactical considerations
- Environmental considerations
- Wounding patterns
- Equipment constraints
- Delays in reaching higher levels of care
- Level of first responder training and experience

PRINCIPLES AND APPLICATIONS OF UN TCCC

IMPORTANCE OF UN TCCC TRAINING

UN TCCC focuses on identifying and treating the causes of preventable death on the battlefield

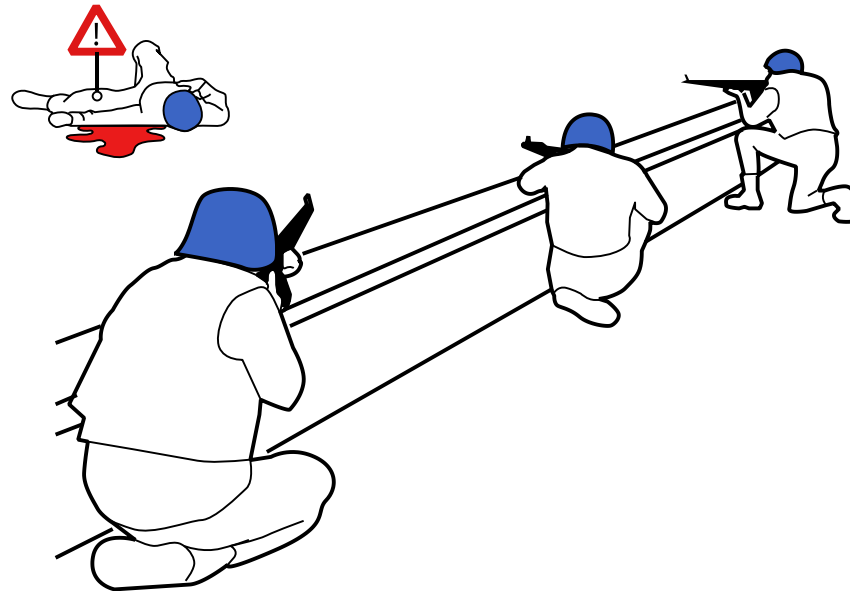


- Bleeding from arm and leg injuries
- Junctional bleeding where an arm or leg joins the torso such as the groin
- Noncompressible bleeding such as a gunshot wound to the abdomen
- Tension pneumothorax (**air trapped in the chest that prevents breathing and circulation**)
- Airway problems

PRINCIPLES AND APPLICATIONS OF UN TCCC

THREE GOALS OF UN TCCC

- Treat the casualty
- Prevent additional casualties
- Complete the mission





ENTER PEACEKEEPING OPERATIONS

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

PHASE 1: CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

- Never attempt to rescue a casualty until hostile fire is suppressed
- Using available resources, ensure scene safety

DIRECT CASUALTY TO REMAIN ENGAGED

**APPLY SELF-AID AND
MOVE TO COVER** *(if able)*

GAIN FIRE SUPERIORITY

MOVE TO CASUALTY
*(if casualty is unable to
move to cover)*

PHASE 1: CARE UNDER FIRE

APPLY TOURNIQUET TO CONTROL LIFE- THREATENING BLEEDING

For life-threatening bleeding, place a tourniquet "high and tight" above the wound

CONTINUE TO MAINTAIN FIRE SUPERIORITY

MOVE CASUALTY



IMPORTANT CONSIDERATIONS:

Continuously assess risks and make a plan before moving a casualty

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING

AAIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / **H**EAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

PHASE 2: OTHER CONSIDERATIONS OF TACTICAL FIELD CARE

TFC

- The casualty and the person rendering care are not under direct fire
- Intervention priorities should follow MARCH PAWS

LIMITED SUPPLIES

- Medical equipment and supplies awareness are limited to what is carried into the field by the FMA and the individual Service member

REMEMBER:

- Always use the casualty's Buddy First Aid Kit (BFAK) first
- TFC can turn into a CUF situation unexpectedly
- Personnel should maintain their situational awareness

PHASE 3: TACTICAL EVACUATION CARE

CASUALTY MONITORING

- Continue to reassess and monitor casualty

PRE-EVAC PROCEDURES

- Complete Casualty Card

EVAC REQUEST

- Use UN Evacuation 4 Liner

COMPLETE REPORT

- M**echanism of injury
- I**njuries
- S**ymptoms
- T**reatment

CASUALTY PREP

- Prep Litter
- Prep Evac Equipment
- Pack Casualty
- Secure Items

(4 Line Format)

Line	UN CASEVAC 4-LINE ALERT MESSAGE		
	DTG:		
1	LOCATION AND CALL SIGN	PLACE NAME / DESCRIPTION	A
		GPS GRID REFERENCE	B
		CALL SIGN OF INCIDENT SITE COMMANDER	C
2	INCIDENT DETAILS	WHAT HAS HAPPENED? (Shooting, road accident, explosion etc).	D
		HOW MANY CASUALTIES ARE THERE?	E
3	ACTIONS BEING TAKEN AT SCENE	TREATMENT BEING GIVEN AND PREPARATIONS FOR EVACUATION	
4	RESOURCES REQUIRED AT SCENE TO TREAT AND EVACUATE PATIENT	GROUND AMBULANCE, AIR EVACUATION, AMET	

IN SUMMARY

GOALS

Treat the casualty

Prevent additional casualties

Complete the mission

Three PHASES of UN TCCC

1 CUF

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TFC

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TEC

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

CHECK ON LEARNING

- What factors influence UN TCCC?
- What are the phases of care in UN TCCC?
- What is the most essential treatment task in CUF?
- What is every first responder's role in CUF?
- What does MARCH PAWS stand for?

ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 02: MEDICAL EQUIPMENT

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

TO3 Describe the use of individual medical equipment components in accordance with UN TCCC Guidelines

- EO9** Describe the use of a first aid kit in accordance with UN policy.
- EO10** Identify the contents of an individual Buddy First Aid Kit (BFAK), and/or other UN specific first aid kits.
- EO11** Describe the general maintenance and resupply procedures for trauma materials in a first aid kit in accordance with UN guidelines.
- EO12** Identify the contents of a UN Trauma Pack (UNTP), and/or other UN specific first aid kits.
- EO13** Describe the use of the components of a UN Trauma Pack (UNTP) in accordance with UN policy

MEDICAL EQUIPMENT

MEDICAL SUPPLIES

WHAT YOU WILL NEED TO PROVIDE AID AND SAVE A LIFE:

Medic Pack

UN Trauma Pack (UNTP)



Individual

Buddy First Aid Kit (BFAK)



BE FAMILIAR WITH YOUR INDIVIDUAL AND
UN/UNIT-SPECIFIC MEDICAL EQUIPMENT!

MEDICAL EQUIPMENT

CONTENT LIST

Medic Pack

UN Trauma Pack (UNTP)

See Handbook

Individual

Buddy First Aid Kit (BFAK)

See Handbook

MEDICAL EQUIPMENT

CONTENT OVERVIEW

TOURNIQUET

A device to stop **massive** bleeding



HEMOSTATIC GAUZE

Gauze rolls used to stop **major life-threatening** bleeding



EMERGENCY BANDAGE/ TRAUMA DRESSING

Elastic bandage used as a **pressure** dressing and/or **standard** dressing



MEDICAL EQUIPMENT CONTENT OVERVIEW

NASOPHARYNGEAL AIRWAY (NPA) WITH WATER-BASED LUBRICANT

Nonsterile, rubber tube-
shaped device that can be
**inserted into the casualty's
nostril**



VENTED CHEST SEAL

Vented and adhesive
chest seal for treating
penetrating wounds to
the **chest**



NDC 10-14 GAUGE 3.25" NEEDLE CATHETER

Catheter-over-needle device that
can be inserted into the casualty's
chest to **treat tension
pneumothorax**



MEDICAL EQUIPMENT CONTENT OVERVIEW

1. Moxifloxacin 400mg tablet
2. Meloxicam 15mg tablet
3. Acetaminophen x2 650mg



NOTE:

- **Each** of the three medications (in unit dosages) is contained in a **single blister pack**
- The Combat Wound Medication Pack (**CWMP**) is an **example of medication that might** be used **ONLY** for traumatic injuries and **ALL** penetrating injuries.
- **Drugs should only be administered by trained medical personnel**

MEDICAL EQUIPMENT

CONTENT OVERVIEW

GAUZE/PACKING DRESSING

Gauze rolls used to **stop minor bleeding** or as **bulky material** for packing wounds



ELASTIC BANDAGE

Stretchable bandage that **creates localized pressure** used for pressure dressings



MEDICAL EQUIPMENT CONTENT OVERVIEW

ACTIVE



PASSIVE



ACTIVE/PASSIVE HYPOTHERMIA BLANKET

Used to prevent and manage hypothermia

MEDICAL EQUIPMENT DOCUMENTATION

MACE 2
Military Acute Concussion Evaluation



Use MACE 2 as close to time of injury as possible.

Service Member Name: _____

DoD/VED/PI/SSN: _____ Branch of Service & Unit: _____

Date of Injury: _____ Time of Injury: _____

Examiner: _____

Date of Evaluation: _____ Time of Evaluation: _____

Purpose: MACE 2 is a multimodal tool that assists providers in the assessment and diagnosis of concussion. The scoring, coding and steps to take after completion are found at the end of the MACE 2.

Timing: MACE 2 is most effective when used as close to the time of injury as possible. The MACE 2 may be repeated to evaluate recovery.

RED FLAGS

Evaluate for red flags in patients with Glasgow Coma Scale (GCS) 13-15.

☐ Deteriorating level of consciousness	☐ Results from a structural brain injury detection device (if available)
☐ Double vision	☐ Seizures
☐ Increased restlessness, combative or agitated behavior	☐ Weakness or tingling in arms or legs
☐ Repeat vomiting	☐ Severe or worsening headache

Defer MACE 2 if any red flags are present. Immediately consult higher level of care and consider urgent evacuation according to evacuation precedence/Tactical Combat Casualty Care (TCCC).

☐ **Negative for all red flags**
Continue MACE 2, and observe for red flags throughout evaluation.

Revised 10/2018 dvbic.dcoe.mil Page 1 of 14

MILITARY ACUTE CONCUSSION EVALUATION (MACE2)

Used for identifying **possible traumatic brain injury (TBI)**

MEDICAL EQUIPMENT

CONTENT OVERVIEW

RIGID EYE SHIELD

A shield that provides a domed **protection** of **eye injuries WITHOUT** applying pressure



MALLEABLE SPLINTING

Semirigid material that can be formed to the injured limb to assist in immobilizing



CRAVATS

Used to assist in immobilizing the injured limb or protrusion



MEDICAL EQUIPMENT DOCUMENTATION

(4 Line Format)

Line	UN CASEVAC 4-LINE ALERT MESSAGE		
	DTG:		
1	LOCATION AND CALL SIGN	PLACE NAME / DESCRIPTION GPS GRID REFERENCE CALL SIGN OF INCIDENT SITE COMMANDER	A B C
2	INCIDENT DETAILS	WHAT HAS HAPPENED? (Shooting, road accident, explosion etc). HOW MANY CASUALTIES ARE THERE?	D E
3	ACTIONS BEING TAKEN AT SCENE	TREATMENT BEING GIVEN AND PREPARATIONS FOR EVACUATION	
4	RESOURCES REQUIRED AT SCENE TO TREAT AND EVACUATE PATIENT	GROUND AMBULANCE, AIR EVACUATION, AMET	

UN Evacuation 4 Liner

Call procedure that is divided into 4 lines of information for evacuation crews

TACTICAL COMBAT CASUALTY CARE (TCCC) CARD

BATTLE ROSTER #:

EVAC: ☐ Urgent ☐ Priority ☐ Routine

NAME (Last, First): LAST 4:

GENDER: ☐ M ☐ F DATE (DD-MMM-YY): TIME:

SERVICE: UNIT: ALLERGIES:

Mechanism of Injury: (X all that apply)

☐ Artillery ☐ Blunt ☐ Burn ☐ Fall ☐ Grenade ☐ GSW ☐ IED
☐ Landmine ☐ MVC ☐ RPG ☐ Other:

Injury: (Mark injuries with an X)

TQ: R Arm

TYPE:

TIME:

TQ: L Arm

TYPE:

TIME:

TQ: R Leg

TYPE:

TIME:

TQ: L Leg

TYPE:

TIME:

Signs & Symptoms: (Fill in the blank)

Time				
Pulse (Rate & Location)				
Blood Pressure	/	/	/	/
Respiratory Rate				
Pulse Ox % O2 Sat				
AVPU				
Pain Scale (0-10)				

DD Form 1380, MAR 2014 TCCC CARD

BATTLE ROSTER #:

EVAC: ☐ Urgent ☐ Priority ☐ Routine

Treatments: (X all that apply, and fill in the blank) Type

C: TQ- ☐ Extremity ☐ Junctional ☐ Truncal

Dressing- ☐ Hemostatic ☐ Pressure ☐ Other

A: ☐ Intact ☐ NPA ☐ CRIC ☐ ET-Tube ☐ SGA

B: ☐ O2 ☐ Needle-D ☐ Chest-Tube ☐ Chest-Seal

C:

Name	Volume	Route	Time
Fluid			
Blood Product			

MEDS:

Name	Dose	Route	Time
Anesthetic (e.g., Ketamine, Fentanyl, Morphine)			
Antibiotic (e.g., Moxifloxacin, Ertapenem)			
Other (e.g., TXA)			

OTHER: ☐ Combat-Pill-Pack ☐ Eye-Shield (☐ R ☐ L) ☐ Splint

☐ Hypothermia-Prevention Type:

NOTES:

FIRST RESPONDER

NAME (Last, First): LAST 4:

DD Form 1380, MAR 2014 (Back) TCCC CARD

Cas Card

UN Approved casualty card

MEDICAL EQUIPMENT MAINTENANCE AND RESUPPLY



REMEMBER:

Regularly inspect your **BFAK**, **UNTP** and other service-specific medical kits:

- **BEFORE**
- **DURING**
- **AFTER**

ALL training events and missions

MEDICAL EQUIPMENT MAINTENANCE AND RESUPPLY



Check to be sure all equipment is in the kit

Check **seals** and **wrappers**

- REPLACE items with **broken** or **unsealed** wrappers

Check **expiration** dates

- REPLACE if **expired** or the expiration date **DOES NOT** exceed your expected deployment timeframe

BEWARE OF EQUIPMENT THAT IS **NOT UN** APPROVED!

DO NOT DEPLOY WITH **MISSING, PREVIOUSLY USED FOR TRAINING, OR EXPIRED EQUIPMENT**

UN TRAUMA PACK



Always use the **casualty's** BFAK first

When supplies are exhausted from the casualty's BFAK, resort to using supplies from the UNTP



UN Trauma Pack

SKILL STATION

Familiarization with BFAK and UNTP



BUDDY AID

UN Trauma Pack (UNTP)



INDIVIDUAL

Buddy First Aid Kit (BFAK)

MEDICAL EQUIPMENT SUMMARY

Familiarize yourself with the content of the UNTP and BFAK.

Ensure you are aware of the resupply procedures and how to maintain your equipment.

Regularly inspect your BFAK, UNTP, and other UN specific medical kits:

- **BEFORE**
- **DURING**
- **AFTER**

ALL training events and missions.

Be sure to use proper documentation when needed; MACE2, 4-Line, and Casualty Card.

CHECK ON LEARNING

- When providing “buddy aid,” should you use your BFAK or the casualty’s BFAK?
- What is the most important lifesaving item in the BFAK?
- When should medications and medical-grade equipment be replaced in the BFAK?



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 03: **CARE UNDER FIRE**

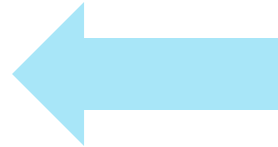
UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

TO4 Given a combat peacekeeping or non-combat peacekeeping scenario, perform Care Under Fire in accordance with UN TCCC Guidelines

EO14 Describe the role of fire superiority and threat containment on UN TCCC.

EO15 Describe the actions required before engaging with a casualty to prevent harm or additional casualties in accordance with UN TCCC guidelines.

EO16 Identify appropriate actions and priorities to treat and move casualties in CUF.

EO17 Identify the importance of early application of limb tourniquets to control life-threatening bleeding in CUF.

EO18 Demonstrate one-handed tourniquet application to self in CUF.

EO19 Demonstrate two-handed tourniquet application to a casualty in CUF.

EO20 Describe the principles, advantages, and disadvantages of one-person drag/carry or two-person drag/carry in CUF.

EO21 Demonstrate the one-person drags and carries of a casualty in CUF.

EO22 Demonstrate two-person drags and carries of a casualty in CUF.

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!



YOU ARE HERE

PHASE 1: CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

- Never attempt to rescue a casualty until hostile fire is suppressed
- Using available resources, ensure scene safety

DIRECT CASUALTY TO REMAIN ENGAGED

**APPLY SELF-AID AND
MOVE TO COVER** *(if able)*

GAIN FIRE SUPERIORITY

MOVE TO CASUALTY
*(if casualty is unable to move
to cover)*

IMPORTANT CONSIDERATIONS:

- **Order of actions** will be dictated by the situation
- A casualty **may** be able to perform **self-aid**
- **Constantly ASSESS risks** and make a plan **before** moving a casualty



CARE UNDER FIRE

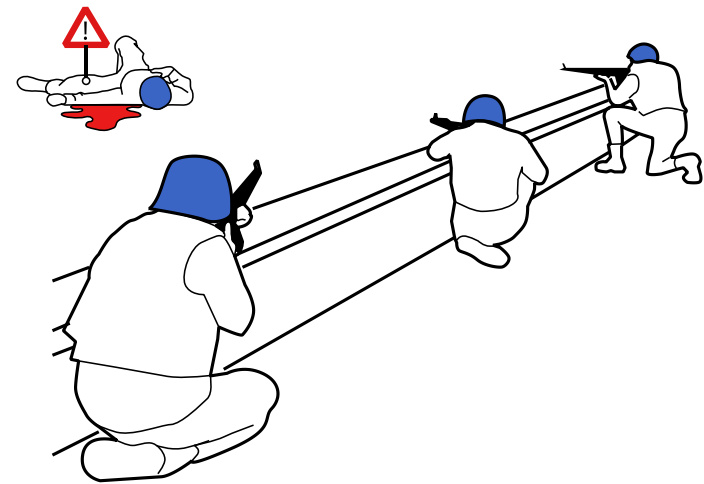
ROLE OF FIRE SUPERIORITY



CARE UNDER FIRE

FIRE SUPERIORITY PRINCIPLES

- **Order of actions** will be dictated by the situation
- Return fire **AND** take cover
- **Direct casualty** to remain engaged
- **Direct casualty** to apply self-aid and move to cover
- DO NOT approach casualty while casualty is **inside of a KILL ZONE**
- **Suppress** hostile fire to gain fire superiority



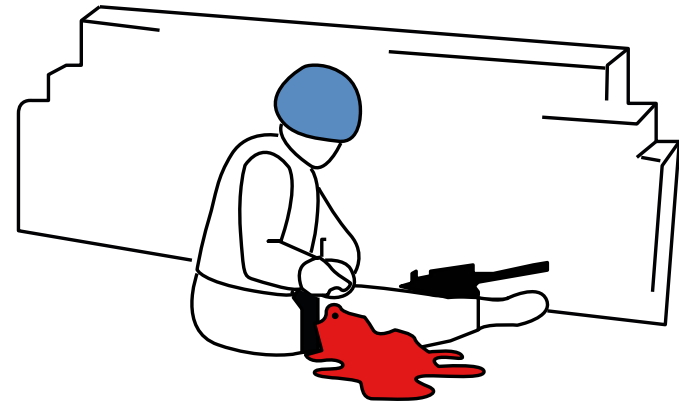
Place a tourniquet on life-threatening bleeding and get the casualty **OUT** of the **KILL ZONE** if they are unable to move



CARE UNDER FIRE CASUALTY SELF-AID



Direct casualty to
return fire, **if able**



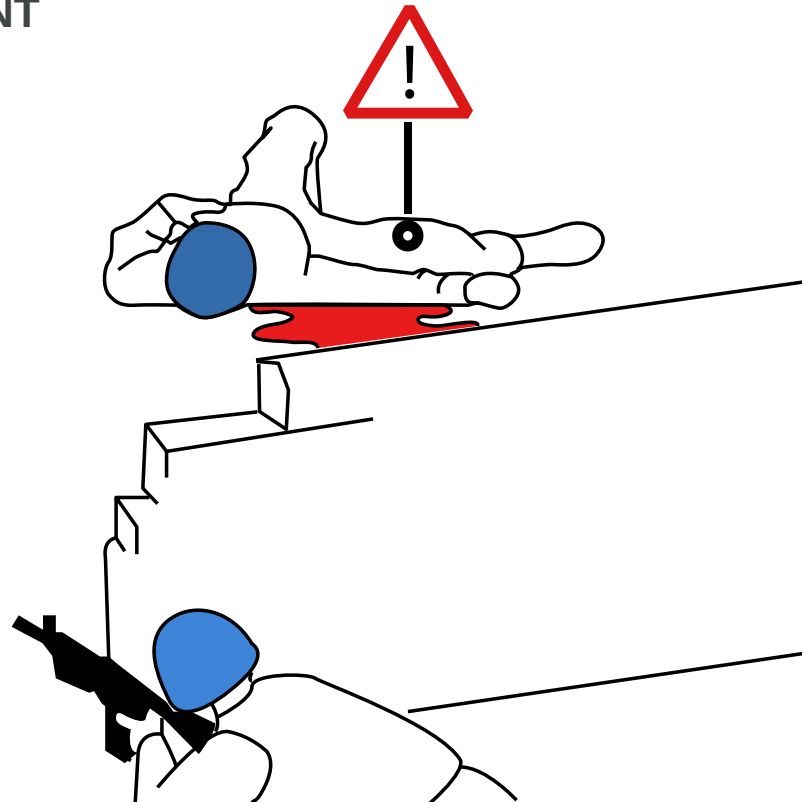
Have casualty move to cover
and apply self-aid

CARE UNDER FIRE

IF CASUALTY IS UNABLE TO MOVE

If casualty is unable to move to cover, when **tactically feasible**, go to them **when** fire has been **SUPPRESSED** and fire superiority has been **GAINED** and **AID THEM IN MOVEMENT**

- Use rope, dragging straps, etc.



CARE UNDER FIRE

PHASE 1: CARE UNDER FIRE

APPLY TOURNIQUET TO CONTROL LIFE-THREATENING BLEEDING

- For life-threatening bleeding, place a tourniquet (TQ) "**high and tight**" above the wound

MOVE CASUALTY

- Drag or carry based on **tactical situation**





MASSIVE BLEEDING IN CARE UNDER FIRE

CARE UNDER FIRE

CARE UNDER FIRE OVERVIEW

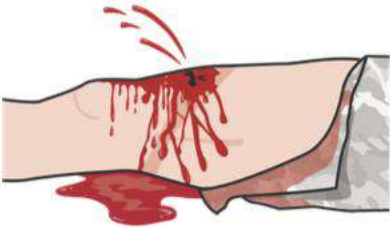
CARE UNDER FIRE BLEEDING CONTROL

Video can be found on DeployedMedicine.com

CARE UNDER FIRE

IDENTIFY LIFE-THREATENING BLEEDING

- **Bright red blood** is pooling on the ground
- The overlying clothes are **soaked** with blood



- There is a traumatic **AMPUTATION** of an **arm** or **leg**

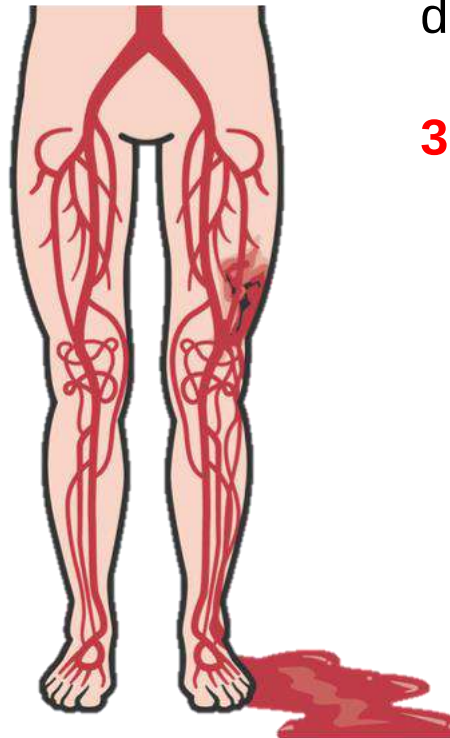


- There is a **pulsatile** (pulsing) or **steady** bleeding from the wound

QUESTION

TIME TO BLEED OUT

How long does it take to **bleed to death** from a **major artery injury**?



Casualties with such an injury can bleed to death in *as little as*

3 MINUTES



CARE UNDER FIRE

KNOW YOUR ACCESS TO A TOURNIQUET

Have TQ available for self-application should you need one, **QUICK ACCESS IS KEY!**

- **DON'T** leave your TQ at the bottom of your pack!

CASUALTY'S BFAK FIRST

- When helping a buddy, **NEVER USE YOUR OWN TQ** before the casualty's
- Look for the TQ in the **casualty's BFAK**
- If the casualty does **NOT** have a TQ available, **then** use the TQ from the UNTP or the next available one



BFAK

CARE UNDER FIRE

ONE-HANDED TOURNIQUET SELF-APPLICATION

One-Handed Application

The one-handed application is normally used to apply a UN TCCC-recommended windlass TQ to the **upper extremities** (upper arm or forearm)

WINDLASS TQ

- A **windlass** TQ is the TQ of choice; it is effective and can be applied quickly
- Use the windlass TQ from the BFAK



CARE UNDER FIRE

ONE-HANDED WINDLASS
TOURNIQUET APPLICATION

ONE-HANDED WINDLASS
TOURNIQUET

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

CARE UNDER FIRE

ONE-HANDED TOURNIQUET APPLICATION CRITICAL POINTS

WINDLASS TQ

- TQ's are used to control massive or severe hemorrhage (bleeding) of an extremity (arms and legs)
- TQs are **effective** and can be **applied quickly**
- TQs are the most important lifesaving item in the BFAK and should be kept easily accessible

When helping a buddy, **NEVER USE YOUR OWN tourniquet** before the casualty's



CARE UNDER FIRE

BUDDY AID

IF CASUALTY IS UNRESPONSIVE OR UNABLE TO MOVE

Approach casualty and
**conduct visual blood
sweep** (looking for major
bleeding)

If you see bleeding, apply
a hasty (high and tight) TQ
using a **two-handed
method**



IMPORTANT CONSIDERATION:
Be sure to use equipment (TQ)
in the casualty's BFAK and not your own

CARE UNDER FIRE

TWO-HANDED WINDLASS TOURNIQUET APPLICATION

TWO-HANDED WINDLASS TOURNIQUET

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

CARE UNDER FIRE

SKILL STATION

CUF Tourniquet (Skills)

- One-Handed (Windlass) TQ Application in CUF
- Two-Handed (Windlass) TQ Application in CUF

TACTICAL FIELD CARE

EXTRACTION OF CASUALTIES

- Casualty to be extracted from vehicles and buildings per UN Standard Operating Procedure (SOP)
- **If casualties are on fire, put out the fire IMMEDIATELY**
- Move casualty to **relative safety** following the unit SOP



CRITICAL OBJECTIVES FOR THE ONE- OR TWO- PERSON DRAG/CARRY



- Once bleeding is controlled, move the casualty to cover using a one- or two-person drag/carry
- At the point of injury you must move your casualty to the closest position of cover
- If you must move a casualty under fire, then quickly develop a casualty movement rescue plan
- When moving casualties, spinal injuries are not to be a concern during Care Under Fire movements



DRAG/CARRY

ONE-PERSON DRAG/CARRY

SUPPORT CARRY

should be
used for a
conscious
casualty
only



NECK DRAG also
limits the casualty and
rescuer from exposure
to enemy fire



KIT OR ARM DRAG

Some body armour is
equipped with a drag
handle; therefore, no
additional equipment is
required



**CRADLE-DROP
DRAG** is effective
in moving a
casualty **up or
down the stairs,
steps, or
short distances**

CARE UNDER FIRE
ONE-PERSON
CASUALTY DRAG/CARRY

ONE-PERSON DRAGS & CARRIES

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

DRAG/CARRY

TWO-PERSON DRAG/CARRY



The **TWO-MAN SUPPORTING CARRY** can be used in transporting **both** conscious and unconscious casualties



KIT OR ARM DRAG can cause Injury to either the rescuer or casualty during training drills; keep safety in mind

FORE AND AFT CARRY
Exposes two rescuers to hostile fire instead of one

CARE UNDER FIRE
TWO-PERSON
CASUALTY DRAG/CARRY

TWO-PERSON DRAGS & CARRIES

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

DRAG/CARRY

SKILL STATION

Drag/Carry (Skills)

- One-Person Drag/Carry
- Two-Person Drag/Carry

CARE UNDER FIRE

SUMMARY

- We defined Care Under Fire
- We discussed the importance of fire superiority
- We defined massive hemorrhage control methods
- We discussed casualty movement in CUF
- We discussed the advantages and disadvantages of one- and two-person drag/carry methods

CHECK ON LEARNING

- What is Care Under Fire?
- What are the signs of life-threatening bleeding?
- How long does it take to bleed to death from a complete femoral artery and vein disruption?
- What are the advantages and disadvantages of one-person drags?
- What are the advantages and disadvantages of two-person carries?



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 04: **PRINCIPLES AND APPLICATION OF TACTICAL FIELD CARE (TFC)**

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

TO5 Given a combat peacekeeping or non-combat peacekeeping scenario, perform Tactical Field Care in accordance with UN TCCC Guidelines

- EO23** Identify the importance of security and safety in Tactical Field Care (TFC)
- EO24** Identify basic principles of removal/extraction of casualties from a unit-specific platform
- EO25** Identify the importance and techniques of communicating casualty information with unit tactical leadership and/or medical personnel
- EO26** Identify the relevant tactical and casualty data involved in communicating casualty information
- EO27** Identify Demonstrate communication of casualty information to tactical leadership and/or medical personnel (in accordance with UN and/or unit standard operating procedures in TFC)
- EO28** Identify triage considerations in TFC

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!



YOU ARE HERE



CASUALTY AND RESPONDER NO
LONGER UNDER EFFECTIVE ENEMY
FIRE OR THREAT
**ENTER INTO THE
TACTICAL FIELD CARE
(TFC) PHASE**

TACTICAL FIELD CARE

PHASE 2: TACTICAL FIELD CARE

TFC IS CARE RENDERED WHEN NO
LONGER UNDER EFFECTIVE ENEMY FIRE
OR THREAT

Having transitioned from
Care Under Fire (CUF), further
assessment and **care** can be
more **deliberate** following the
MARCH PAWS sequence

This does **NOT** mean that
the danger is over – the
tactical situation could
change back to CUF **AT
ANY TIME**

IMPORTANT CONSIDERATIONS:

Mission personnel should
constantly maintain their
situational awareness of
the **potential threat** from
hostile forces

Tactical Field Care also encompasses
combat/tactical environment not involving enemy
fire (e.g., parachute injury in combat zone)

TACTICAL FIELD CARE

SECURITY AND SAFETY IN TACTICAL FIELD CARE

Establish a security perimeter in accordance with unit tactical standard operating procedures and/or battle drills

Maintain tactical situational awareness



CASUALTIES WITH ALTERED MENTAL STATUS SHOULD HAVE

- Weapons **cleared** and **secured**
- **Communications** secured
- **Sensitive** items redistributed
- **Weapons** and **radios DO NOT** mix well with shock or narcotics



TACTICAL FIELD CARE

OTHER CONSIDERATIONS

TFC is when the casualty and the person rendering care are NOT under direct fire



LIMITED SUPPLIES

Medical equipment and supplies are **LIMITED** to what is **carried** into the field by the FMA and the individual UN member



REMEMBER:

- Always use the **casualty's** BFAK **FIRST**
- TFC can turn into a CUF situation **unexpectedly**
- Personnel should **maintain** their situational awareness

TACTICAL FIELD CARE

CASUALTY REMOVAL/EXTRACTION PRINCIPLES

- The first principle is safety. Safety is critical.
- The second principle of MARCH still applies. If possible, you may want to initiate lifesaving measures like applying a tourniquet before the extraction, and monitor them throughout the process.
- The third principle is training.



Extractions will vary based on the mission and vehicles located in your Area of Responsibility (AOR)

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

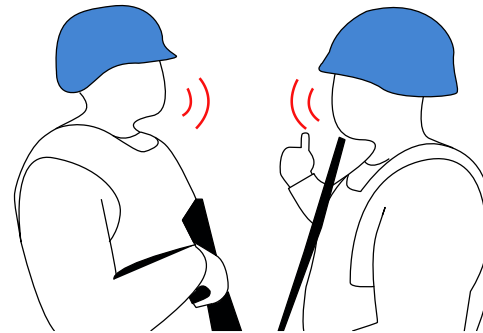
SPLINTING

TACTICAL FIELD CARE COMMUNICATION



Communicate with the casualty, if possible

- **Encourage**
- **Reassure**
- **Explain care** each step of the way



Communicate with tactical leadership **IMMEDIATELY** on evacuation requirements

Continue to communicate with leadership on casualty treatment as needed

(4 Line Format)

UN CASEVAC 4-LINE ALERT MESSAGE			
Line	DTG:		
1	LOCATION AND CALL SIGN	PLACE NAME / DESCRIPTION	A
		GPS GRID REFERENCE	B
		CALL SIGN OF INCIDENT SITE COMMANDER	C
2	INCIDENT DETAILS	WHAT HAS HAPPENED? (Shooting, road accident, explosion etc).	D
		HOW MANY CASUALTIES ARE THERE?	E
3	ACTIONS BEING TAKEN AT SCENE	TREATMENT BEING GIVEN AND PREPARATIONS FOR EVACUATION	
4	RESOURCES REQUIRED AT SCENE TO TREAT AND EVACUATE PATIENT	GROUND AMBULANCE, AIR EVACUATION, AMET	

COMMUNICATE WITH EVACUATION AND MEDICAL ASSETS

Communicate with the evacuation system to coordinate evacuation using the **4-Line CASEVAC request**

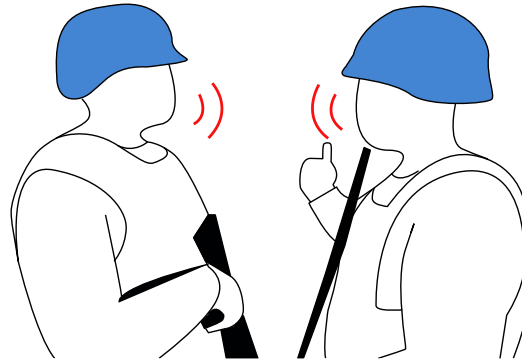
Keep each casualty's Cas Card up to date

TACTICAL FIELD CARE

COMMUNICATE RELEVANT CASUALTY DATA



Document ALL assessment and medical care (including interventions and medications) on the Casualty Card



Communicate with CASEVAC using the:

4-Line CASEVAC request form

MIST Report

Mechanism of injury

Injuries

Symptoms

Treatment

Relay the information following your standard operating procedures

COMMUNICATE CASUALTY DATA IN HAND-OFF WITH MEDIC OR CASEVAC

When handing casualty off to medic or CASEVAC, read off the Casualty Card, including any additional information as needed

MIST report may **change** as the **casualty status** and **interventions** performed change

TACTICAL FIELD CARE

TRIAGE – PRIORITIZING MULTIPLE CASUALTIES

Casualties with these injuries must be treated first:

- #1 **Massive bleeding**
- #2 **Penetrating** trauma into the box (torso)
- #3 **Airway** compromise
- #4 **Respiratory** distress
- #5 Altered mental status



TACTICAL FIELD CARE

TRIAGE CONSIDERATIONS

- Casualties may need to be sorted into prioritized treatment groups
- The FMA may be required to assist medical personnel with urgent casualties, monitor casualties after emergency interventions, and may be tasked with preparing casualties for evacuation



TACTICAL FIELD CARE SUMMARY

- Ensure you are aware of all security and safety procedures for TFC
- Tactical Field Care is when the casualty and the responder are both no longer under effective enemy fire or threat
- Security and safety in TFC is a priority; clear and secure weapons and communications
- Understand the principles of casualty extractions in accordance with unit standard operating procedures
- Always follow the MARCH PAWS procedure during life-threatening and after life-threatening injuries

CHECK ON LEARNING

- What is the difference between the TFC and CUF phases?
- True or False: During TFC, the tactical situation could change back to CUF again at any time.
- What is MARCH PAWS?



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 05: TACTICAL TRAUMA ASSESSMENT (TTA)

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

TO6 Given a combat peacekeeping or non-combat peacekeeping scenario, perform Tactical Field Care in accordance with UN TCCC Guidelines

- EO29** Demonstrate the techniques used to assess a casualty for responsiveness.
- EO30** Identify the common causes of altered mental status in combat peacekeeping or non-combat peacekeeping environments
- EO31** Identify the importance of disarming and securing communications equipment of a casualty with altered mental status
- EO32** Identify the importance and techniques of communicating with a casualty in TFC
- EO33** Demonstrate communicating with a casualty in TFC
- EO34** Demonstrate application of body substance isolation (BSI) in TFC
- EO35** Demonstrate a TTA in the proper order using the MARCH PAWS sequence in accordance with UN TCCC Guidelines
- EO36** Demonstrate the appropriate actions and interventions used during a casualty assessment to render aid to the casualty in accordance with UN TCCC Guidelines

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING **#1 Priority**

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / **H**EAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

TACTICAL TRAUMA ASSESSMENT HOW-TO

TACTICAL TRAUMA ASSESSMENT

Video can be found on DeployedMedicine.com

COMBAT SPEED TTA “FIRE FIGHT CONSCIOUS CASUALTY”

TACTICAL TRAUMA ASSESSMENT “Fire Fight Conscious Casualty”

Video can be found on DeployedMedicine.com

COMBAT SPEED TTA

“FIRE FIGHT UNCONSCIOUS CASUALTY”

TACTICAL TRAUMA ASSESSMENT

‘Explosion’ Unconscious Casualty”

Video can be found on DeployedMedicine.com

TACTICAL TRAUMA ASSESSMENT

BODY SUBSTANCE ISOLATION (BSI)



Whenever possible, the responder should don latex-free gloves as a precaution

CASUALTY BLOOD SWEEP

Your initial casualty evaluation should be a rapid head-to-toe check for any unrecognized life-threatening bleeding

- Check the neck, axillary (armpit), inguinal (groin)
- Check the legs, arms, abdomen, chest (in a raking motion) and back



MASSIVE BLEEDING

QUICKLY IDENTIFY

MASSIVE, LIFE-THREATENING BLEEDING

BRIGHT RED BLOOD

is pulsing or spurting, or there is steady bleeding from the wound



Overlying clothing or ineffective bandaging is becoming
SOAKED WITH BLOOD



BRIGHT RED BLOOD

is pooling on the ground



AMPUTATION of
the arm or leg

IMPORTANT! Casualties with severe injuries can bleed to death in *as little as 3 minutes*

MARCH

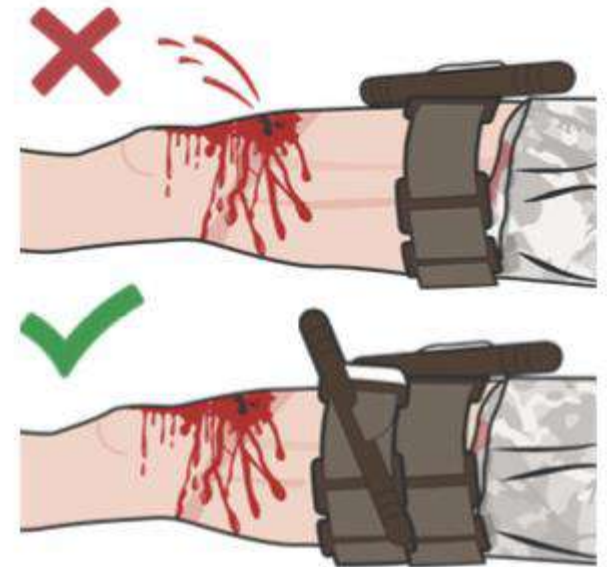
MASSIVE HEMORRHAGE CONTROL IN TFC

HEMORRHAGE CONTROL

Assess for other sources of hemorrhage, and control all life-threatening bleeding



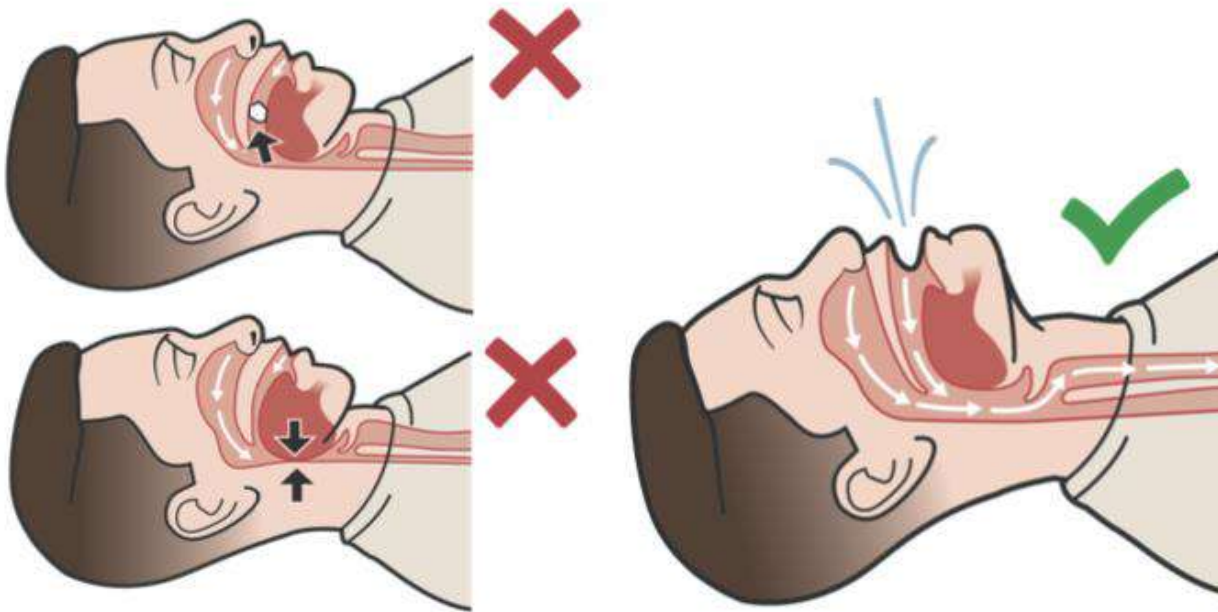
If not already done, where appropriate, use a UN TCCC recommended limb tourniquet (TQ) to control life-threatening external hemorrhage, applying it 2-3 inches above the source of bleeding, directly on the skin



Reassess CUF interventions, and If bleeding is not controlled with the first TQ, apply a second TQ side-by-side with the first

AIRWAY MANAGEMENT

IDENTIFYING OBSTRUCTED AIRWAY



IMPORTANT! Remove any visible objects, but do not perform a blind finger sweep

MARCH

SIGNS AND SYMPTOMS AIRWAY MAY BE BLOCKED:

- Casualty is in distress and indicates they can't breathe properly
- Casualty is making snoring or gurgling sounds
- Visible blood or foreign objects are present in the airway
- Maxillofacial trauma (severe trauma to the face) is observed

OPENING THE AIRWAY

IN A **CASUALTY** WITHOUT AN AIRWAY OBSTRUCTION, YOU CAN PERFORM THE FOLLOWING MANEUVERS:

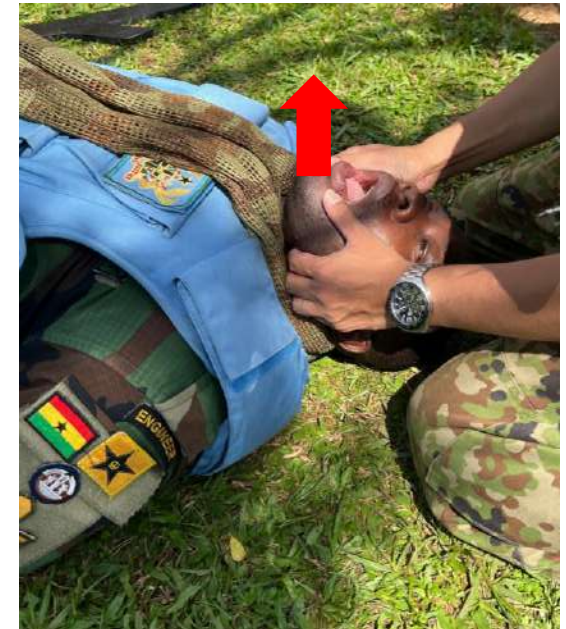
Unconscious casualty's tongue may have relaxed, causing the tongue to block the airway by sliding to the back of the mouth and covering the opening to the Windpipe

If you suspect that the casualty has suffered a neck or spinal injury, use the jaw-thrust method

HEAD-TILT CHIN-LIFT



JAW THRUST



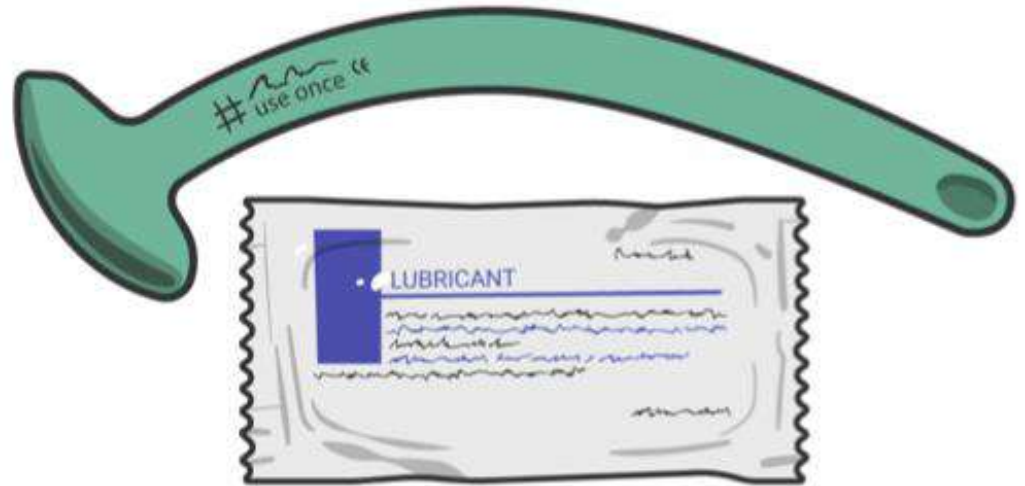
MARCH

OPENING THE AIRWAY

MANAGING THE AIRWAY

IF the casualty is breathing on their own but unconscious or semiconscious **AND** there is no airway obstruction, further airway management is best achieved with a nasopharyngeal airway (NPA)

An NPA can be used on a conscious or unconscious casualty to help open/maintain an open airway



MARCH

MANAGING THE AIRWAY

MANAGEMENT/RECOVERY POSITION



Casualties with **severe facial trauma** can often protect their own airways by sitting up and leaning forward



Assist a conscious casualty by helping them assume any comfortable sitting-up position that **ALLOWS THEM TO BREATHE EASILY**



For an unconscious casualty not in shock, place them into the **RECOVERY POSITION**

MARCH

TACTICAL TRAUMA ASSESSMENT

RESPIRATIONS



Breathing rate
(Monitor respirations)

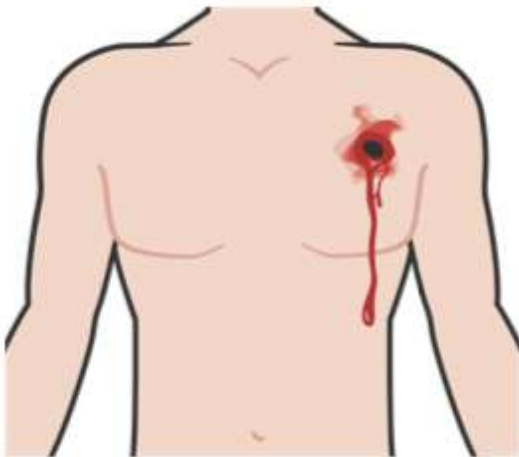


Level of consciousness

M A R C H

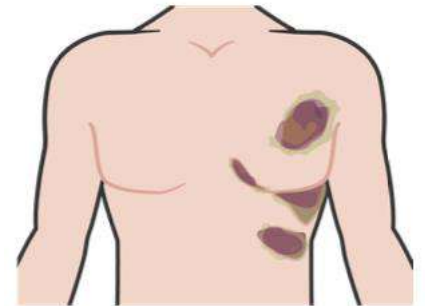
TRE SPIRATION ASSESSMENT AND MANAGEMENT IN TFC

LIFE- THREATENING CHEST INJURY



Expose the chest to assess for:

- Gunshot or shrapnel wound
- Blunt-force trauma
- Bruising or contusions
- Any deformities of the chest



If penetrating trauma is found
or identified, apply a chest seal
(vented, if available)

M A R C H

CIRCULATION

REASSESS TREATMENTS

M



Reassess **ALL** treatment
for **M**assive hemorrhage

A



Reassess **A**irway

R



Reassess **R**espirations

MARCH

CIRCULATION

GENERAL INDICATOR OF SHOCK

SIGNS AND SYMPTOMS OF SHOCK INCLUDE:

- Mental confusion
- Rapid breathing
- Sweaty, cool, clammy skin
- Pale/grey skin
- Weak or absent radial pulse
- Nausea
- Excessive thirst
- Previous severe bleeding



MARCH

HYPOTHERMIA

HYPOTHERMIA PREVENTION

Place the casualty on an insulated surface as soon as possible



- Hypothermia is much easier to prevent than to treat! Begin hypothermia prevention as soon as possible
- Decreased body temperature interferes with blood clotting and increases the risk of bleeding
- Blood loss can cause a significant drop in body temperature, even in hot weather

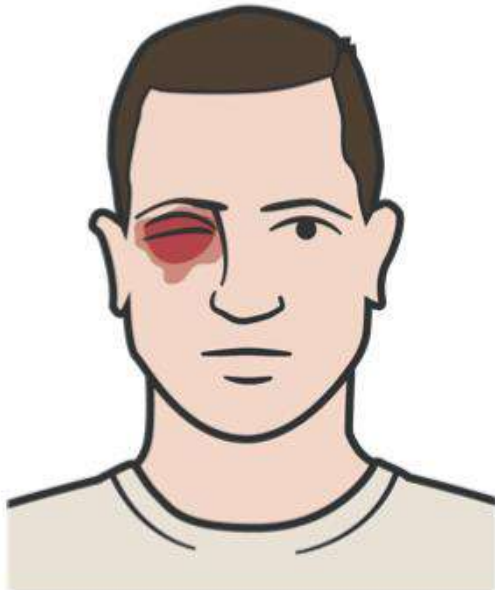
REMEMBER:

Hypothermia is an issue even in hot environments and must be prevented

MARCH

EYE INJURIES

IF A **PENETRATING EYE INJURY** IS NOTED OR SUSPECTED



Do not cover both eyes unless both eyes are injured

- In the absence of an eye shield, consider using tactical eyewear



PENETRATING INJURIES

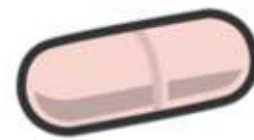
WOUND MEDICATION PACK (WMP)



Acetaminophen
is used for pain
management



Meloxicam can give
significant pain relief
and will not alter the
casualty's mental
status



Moxifloxacin
contains oral
antibiotic medication

MARCH
PAWS

MARCH
PAWS

Remember:

- Medics carry medications
- Document all medications administered on the UN Casualty Card

TACTICAL FIELD CARE GUIDELINES

INSPECT AND ADDRESS KNOWN WOUNDS

Dress all known wounds and then assess all applied bandages for:

- Increased pain
- Skin discoloration
- Irregular pulse

If any of these conditions are found, they might indicate an emergency!

Ensure the applied bandage **isn't too tight**; loosen as needed while keeping the bleeding controlled



DO NOT EVER APPLY IT AND FORGET IT!

MARCH PAWS

SECONDARY INJURIES

BURN CARE



EXTRACT

Extract from burning vehicle, building, or area

STOP THE BURNING PROCESS



COVER

Cover the burn area with dry, sterile dressings for general burns



WHITE PHOSPHORUS = WET DRESSING

Eliminate wound contact with oxygen

Be sure to assess MARCH before burn care

SECONDARY INJURIES

ASSESS FOR A FRACTURE

WARNING SIGNS

OF A FRACTURE:

- Significant pain and swelling
- An audible or perceived “snap”
- Different length or shape of limb
- Loss of pulse or sensation in the injured arm or leg (check pulse before and after treatment)
- Crepitus (hearing a crackling or popping sound under the skin)



CLOSED FRACTURE



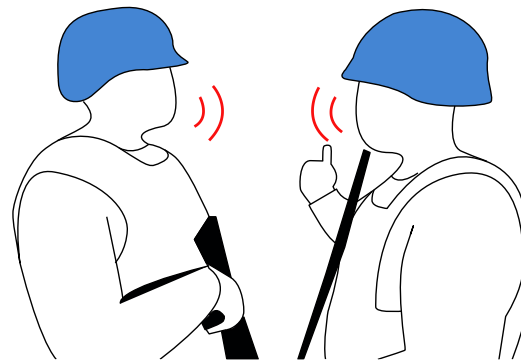
OPEN FRACTURE

TACTICAL FIELD CARE COMMUNICATION



Communicate with the casualty and if possible

- Encourage
- Reassure
- Explain care each step of the way



Communicate with tactical leadership as soon as possible with status and evacuation requirements throughout casualty treatment as needed

COMMUNICATE WITH EVACUATION AND MEDICAL ASSETS

- Communicate with the evacuation system to coordinate CASEVAC using the 4-Line CASEVAC request
- Keep the Casualty Card

TACTICAL EVACUATION

PHASE 3: TACTICAL EVACUATION CARE

CASUALTY MONITORING

Continue to reassess and monitor casualty

EVAC REQUEST

Use 4-Line format

CASUALTY PREP

- Secure items
- Prep litter
- Prep evac equipment
- Pack casualty

COMPLETE MIST REPORT

M Mechanism of injury

I Injuries

S Symptoms

T Treatment

PRE-EVAC PROCEDURES

- Complete Casualty Card



TRAINER-LED DEMONSTRATION

Tactical Trauma Assessment

TACTICAL TRAUMA ASSESSMENT SUMMARY

- We defined Tactical Trauma Assessment
- We discussed assessing the casualty using MARCH PAWS
- We discussed proper communication and documentation

CHECK ON LEARNING

- During which phase of care is the TTA performed?
- What mnemonic is used to prioritize care during the TTA?
- What is a blood sweep?



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 06: **MASSIVE HEMORRHAGE CONTROL**

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

TO7 Given a combat peacekeeping or non-combat peacekeeping scenario, perform massive hemorrhage control during Tactical Field Care in accordance with UN TCCC Guidelines

- EO37** Identify life-threatening hemorrhage (bleed)
- EO38** Identify the importance of early application of limb tourniquets to control life-threatening bleed
- EO39** Identify anatomical sites for applying direct and indirect pressure to control bleeding
- EO40** Demonstrate the appropriate application of a UN TCCC-recommended limb tourniquet
- EO41** Identify risks associated with applying an improvised limb tourniquet
- EO42** Demonstrate the application of a UN TCCC-recommended hemostatic dressing
- EO43** Demonstrate an evaluation of previously applied tourniquets for hemorrhage control effectiveness
- EO44** Demonstrate improvised junctional hemorrhage control with hemostatic dressing and direct pressure

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!



YOU ARE HERE

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

➤ **MASSIVE BLEEDING** #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / **H**EAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

HEMORRHAGE OVERVIEW IN TFC

HEMORRHAGE CONTROL IN TACTICAL FIELD CARE

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

TACTICAL FIELD CARE

SECURITY AND SAFETY IN TACTICAL FIELD CARE

- **Establish** a security perimeter in accordance with UN tactical standard operating procedures (SOPs) and/or battle drills
- **Maintain** tactical situational awareness



CASUALTIES WITH ALTERED MENTAL STATUS SHOULD HAVE

- **Weapons** cleared and secured
- **Communications** secured
- **Sensitive items** redistributed
- **NOTE:** Weapons and radios **DO NOT** mix well with **shock** or **narcotics**



TACTICAL FIELD CARE

PRIORITIZING **MULTIPLE** CASUALTIES

Casualties with these injuries must be treated first:

- #1 **Massive bleeding**
- #2 **Penetrating** trauma into the box (torso)
- #3 **Airway** compromise
- #4 **Respiratory** distress
- #5 **Altered** mental status



WHEN IS BLEEDING LIFE-THREATENING?

EARLY CONTROL OF SEVERE HEMORRHAGE IS **CRITICAL**



- **BRIGHT RED BLOOD** is pooling on the ground
- The **overlying clothes** are **SOAKED** with blood



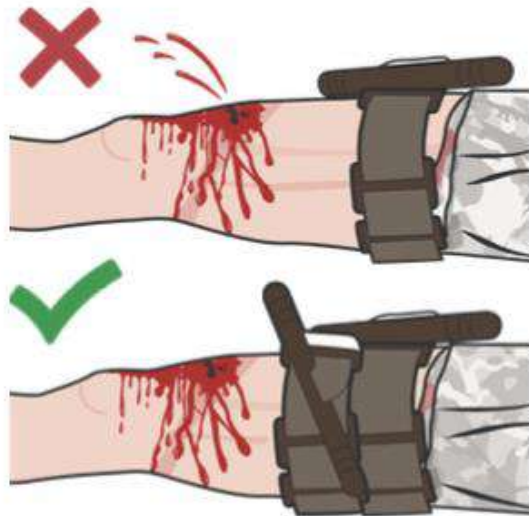
- There is **pulsatile** (pulsing) or **steady** bleeding from the wound



- Bandages or makeshift bandages used to cover the wound are **INEFFECTIVE** and steadily becoming **soaked** with blood
- There is a traumatic **amputation** of an arm or leg

MASSIVE HEMORRHAGE CONTROL

MASSIVE HEMORRHAGE REASSESSMENT



- **Reassess** any interventions performed in CUF
- If a tourniquet was previously applied, **assess** for effectiveness (bleeding has stopped and distal pulses are absent)
- If **ineffective**, apply a second tourniquet **side-by-side** with the first

- Perform a **blood sweep** and **expose** the casualty to look for other **life-threatening bleeding**, stopping to immediately treat anything identified, and look for non-life-threatening bleeding to address later

MASSIVE HEMORRHAGE CONTROL

TOOLS FOR LIFE-THREATENING HEMORRHAGE CONTROL

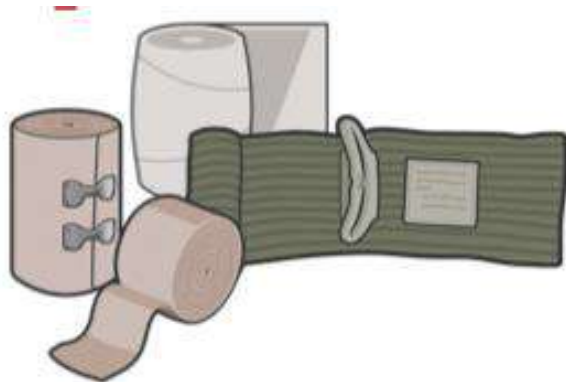
Direct pressure



- UN TCCC-recommended tourniquet



hemostatic dressing
and pressure
bandages



Pressure Delivery
Device (PDD)



- Gauze/other dressings and pressure bandages

MASSIVE HEMORRHAGE CONTROL

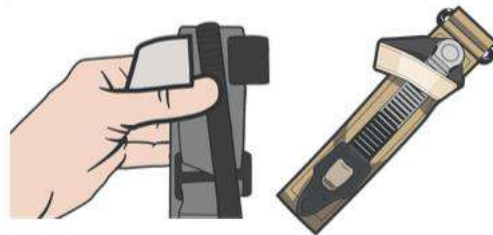
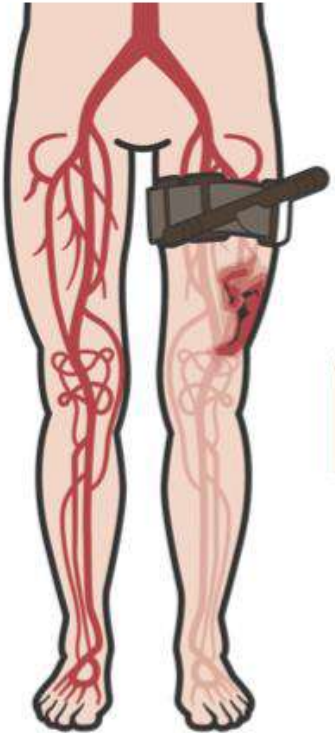
INITIAL DIRECT PRESSURE BEFORE INTERVENTION

- **Direct pressure** can and **should be used** as a temporary measure **until** a **tourniquet or dressing is in place**
- It is difficult to use direct pressure alone to control significant bleeding or while moving the casualty
- Direct pressure can be **used** if a treatment no longer maintains control of the bleeding **while a new treatment is started**



MASSIVE HEMORRHAGE CONTROL

TOURNIQUETS



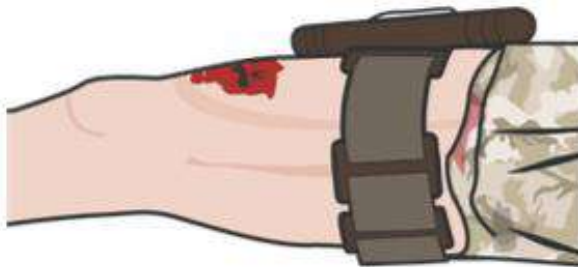
- The TQ that should be used as the **FIRST option** is the **CASUALTY'S TQ** from **THEIR own BFAK**
 - If this is not possible, or more than one tourniquet is needed, then you may apply the TQ from your own BFAK or a TQ from unit mission equipment
 - You should have a **new TQ** in your BFAK. It is designed as a **ONE-TIME USE DEVICE**
- A device stopping the flow of blood to an arm or leg by applying circumferential (around) pressure to the limb



MASSIVE HEMORRHAGE CONTROL

DELIBERATE TOURNIQUETS

- A TQ applied in **CUF** should be **reassessed**



- A TQ applied in TFC will be a **deliberate** TQ, applied **2-3 inches above the wound**, directly on the skin (not over clothing)
- In TFC the **source of bleeding** can be **identified** to ensure that TQs are properly placed



- TQs applied during **CUF** are **sometimes inadequate** due to the inability to properly expose and assess the wound, and application of an additional **side-by-side** TQ may be necessary

MASSIVE HEMORRHAGE CONTROL

TOURNIQUETS IN TACTICAL FIELD CARE

- Use a TQ to control life-threatening external hemorrhage that is anatomically amenable to TQ 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 TQ, apply a second TQ **side-by-side** with the first

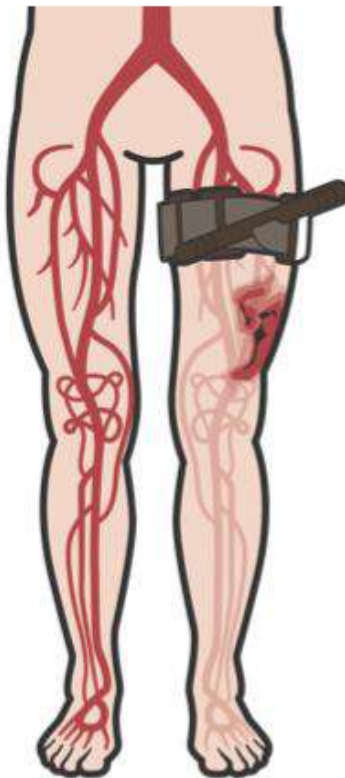
- Time should be documented during the TFC phase, not the CUF phase



- **TQs need to be applied rapidly.** The bleeding should be stopped **WITHIN ONE MINUTE** and the TQ fully secured within three minutes
- TQ application time is **important** in helping medical personnel manage TQs

MASSIVE HEMORRHAGE CONTROL

TOURNIQUETS **EFFECTIVENESS** CHECKS



TQs can be assessed for effectiveness by:

- Ensuring that the **BLEEDING HAS STOPPED**
- Checking a pulse **distally** (further out) on the limb where the TQ is applied to ensure there is **NO PULSE**

MASSIVE HEMORRHAGE CONTROL

TWO-HANDED WINDLASS TFC

TWO-HANDED WINDLASS TOURNIQUET

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

MASSIVE HEMORRHAGE CONTROL

TOURNIQUET PITFALLS/MISTAKES

- **NOT** using one when you should or waiting too long to put it on
- **NOT** pulling all the slack out before tightening
- **NOT** making it tight enough – the TQ should stop the bleeding AND eliminate the distal pulse
- **NOT** using a second TQ, if needed
- Using a TQ for minimal bleeding; however, **when in doubt**, apply a TQ
- Putting it on too proximally (too high) if the bleeding site is clearly visible
- Loosening TQs for a period to allow recirculation of a limb
- Taking it off (this should be performed **ONLY** by **medical personnel** at a **higher level of care**)
- **DON'T** put TQs over joints!



RISKS WHEN USING IMPROVISED TOURNIQUETS

DON'T USE AN IMPROVISED TOURNIQUET!



- If no TQ is available, **pack the wound** and hold **direct pressure** over the main source of bleeding

RISKS ASSOCIATED WITH IMPROVISED TOURNIQUETS:

- **DAMAGE** may occur to skin if the band is too narrow
- Bleeding may **WORSEN**
- Bleeding **MAY NOT BE COMPLETELY CONTROLLED**
- An improvised TQ may likely **LOOSEN** over time from not being properly secured

MASSIVE HEMORRHAGE CONTROL

SKILL STATION

TFC Hemorrhage Control (Skills)

- Two-Handed Windlass Tourniquet Application in TFC

MASSIVE HEMORRHAGE CONTROL

HEMOSTATIC DRESSING

- UN TCCC-recommended hemostatic dressing is safe and contains active ingredients that assist with blood-clotting at the bleeding site
- Hemostatic dressing can also be used for controlling bleeding in conjunction with tourniquets
- A BFAK contains one hemostatic dressing and one dry sterile gauze



MASSIVE HEMORRHAGE CONTROL

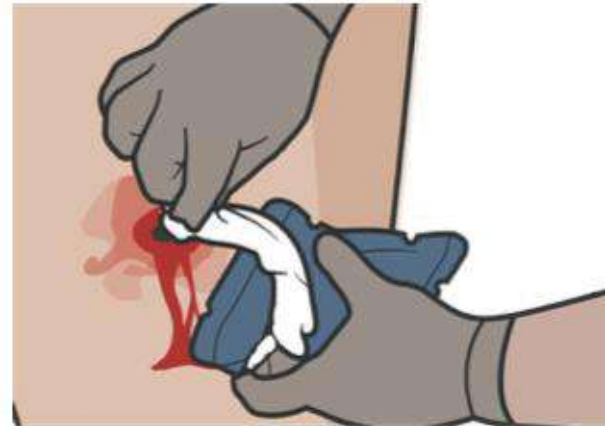
HEMOSTATIC DRESSING



- **Hemostatic dressing with or without** a pressure bandage **CAN** be used to control compressible junctional hemorrhage

Remember:

- **DO NOT** pack hemostatic dressing into the abdomen or chest
- A BFAK contains one hemostatic dressing and one dry sterile gauze



- For compressible (external) hemorrhage not amenable to limb TQ (places where a tourniquet cannot be effectively applied) or for bleeding from wounds not requiring a TQ, use a UN recommended hemostatic dressing

MASSIVE HEMORRHAGE CONTROL

WOUND PACKING

- Identify the **exact source** of bleeding and **APPLY direct pressure** as a **temporary** measure **UNTIL** gauze is placed
- Pack the wound, **maintaining CONSTANT** direct pressure at the source of bleeding within **90 SECONDS** for it to be effective
- **HOLD** direct pressure on the gauze over the wound for at least **3 MINUTES** (**this is necessary**, even with the active ingredient in hemostatic dressing)
- When packing a large wound, more than one hemostatic dressing and/or **additional** gauze may be **needed**
- Carefully **observe** to determine if bleeding has been **controlled**



- Once you are sure the bleeding has **stopped**, apply a pressure bandage

MASSIVE HEMORRHAGE CONTROL

WOUND PACKING FOR FAILED CONTROL



- If packed with hemostatic dressing, **remove** before packing material and **repack** with a new hemostatic dressing, as available
- It may be a **fresh** dressing of the **same** or **different type**
- Alternatively, additional **hemostatic** or **nonhemostatic dressing** **CAN** be applied on top of the first gauze
- If hemostatic dressing is **NOT** readily available, use dry sterile gauze or some other materials to pack the wound

MASSIVE HEMORRHAGE CONTROL

PRESSURE BANDAGES



- **ALL** dressings for **significant** bleeding **should be secured** with pressure bandages
- Place the bandage pad **directly** on the dressing, **continuing to apply direct pressure**



- Wrap the pressure/elastic bandage **tightly**, focusing pressure directly over the wound
- **SECURE** the hooking **ends** of the Velcro or closure bar onto the last wrap of the bandage

MASSIVE HEMORRHAGE CONTROL

PRESSURE BANDAGE ASSESSMENT



Key Points:

- Check for **circulation** **BELOW** the pressure bandage by **feeling for distal pulse** (a pulse below the bandage)
- If the **skin** **BELOW** the pressure bandage becomes **cool** to the touch, **bluish**, or **numb**, or if the **pulse** below the pressure dressing is **no longer present**, the pressure bandage may be **too tight**
- If circulation is **BLOCKED** or **STOPPED**, **loosen** and retie the bandage
- Dressings and bandages should be **reassessed** and checked routinely and **EVERY TIME** a casualty is moved

MASSIVE HEMORRHAGE CONTROL

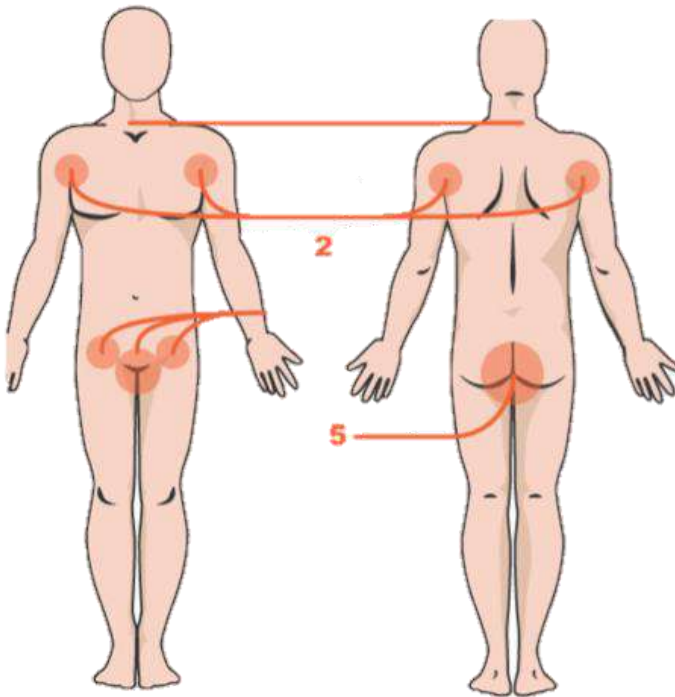
PRESSURE BANDAGES

PRESSURE BANDAGE

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

JUNCTIONAL HEMORRHAGE

JUNCTIONAL ANATOMY

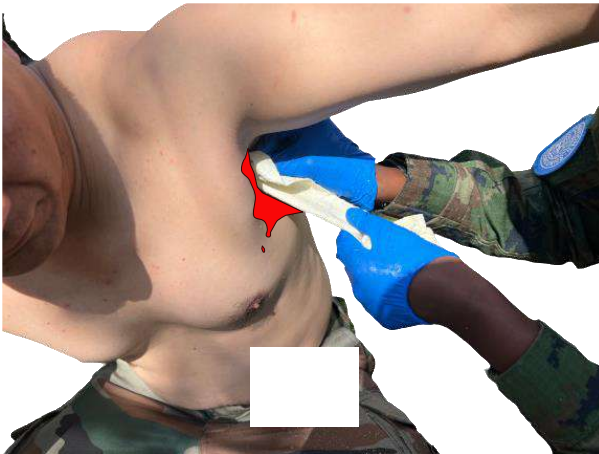


- Junctional areas are located at the **junction of the extremities** and **neck** with the torso
- Junctional hemorrhage can also occur on the extremities if the **injury is TOO CLOSE to the torso** for a tourniquet to be applied
- Blood vessels at **junctional areas are LARGER** than in the limbs but **can still be COMPRESSED** with direct pressure



JUNCTIONAL HEMORRHAGE

NECK JUNCTIONAL HEMORRHAGE CONTROL



- **Pack** the wound



- **Apply pressure** for **3 MINUTES**



- **Secure** with bandage
- If the bandage has a pressure bar, **pull the bandage TIGHT**, and reverse it back over the top of the pressure bar, **forcing it down** onto the pad

MASSIVE HEMORRHAGE CONTROL

NECK JUNCTIONAL HEMORRHAGE CONTROL

**NECK JUNCTIONAL
HEMORRHAGE CONTROL**

Video can be found on DeployedMedicine.com

JUNCTIONAL HEMORRHAGE

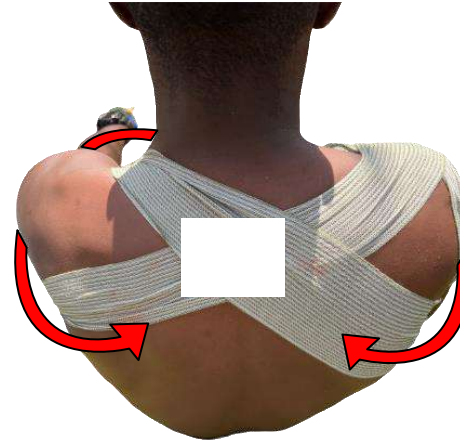
AXILLARY JUNCTIONAL HEMORRHAGE CONTROL



- **Expose** the wound



- **Pack** the wound



- **Secure** the dressing in place



- **Swath** the (injured side) upper arm to the side of the chest using a **cravat**

MASSIVE HEMORRHAGE CONTROL

AXILLARY JUNCTIONAL HEMORRHAGE CONTROL

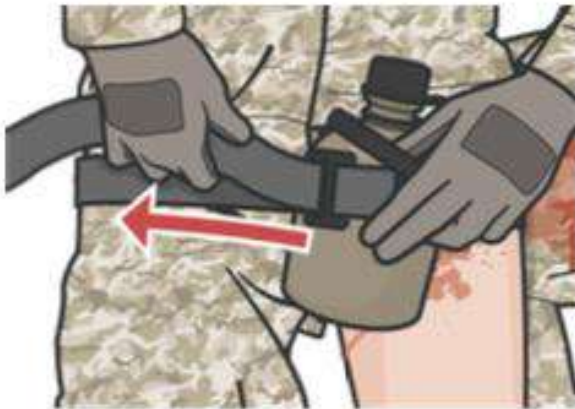
AXILLARY JUNCTIONAL HEMORRHAGE CONTROL

Video can be found on DeployedMedicine.com

JUNCTIONAL HEMORRHAGE

JUNCTIONAL HEMORRHAGE CONTROL WITH A PRESSURE DELIVERY DEVICE (PDD)

- A PDD is made by using such materials as a **shoe/boot, full water bottle, or canteen**



- For groin injuries packed with hemostatic dressing, use an improvised junctional PDD to **SECURE** the **gauze**



- The PDD is placed in the inguinal gutter while **CONTINUOUSLY MAINTAINING** pressure to the gauze
- The PDD is then **secured** with a tourniquet and **tightened** to add **ADDITIONAL** pressure
- You may need to put **two TQs TOGETHER** when improvising a PDD

MASSIVE HEMORRHAGE CONTROL

INGUINAL IMPROVISED JUNCTIONAL WITH PDD

PRESSURE DELIVERY DEVICE (for Junctional Hemorrhage)

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

MASSIVE HEMORRHAGE CONTROL

SKILL STATION

TFC Hemorrhage Control (Skills)

- Wound Packing with hemostatic dressing and Pressure Bandage
- Neck Junctional Hemorrhage Control
- Axillary (Armpit) Junctional Hemorrhage Control
- Inguinal (Groin) Hemorrhage Control with Improvised Junctional Pressure Delivery Device (PDD)

MASSIVE HEMORRHAGE CONTROL

SUMMARY

Pressure bandages over areas like the:

- Base of the neck
- Axilla
- Groin
- Buttocks
- Perineum
- Junctional areas have **specific** application techniques that **MAXIMIZE** the amount of pressure they exert on the gauze
- **Recheck** the dressing **FREQUENTLY**, especially while transporting the casualty to **next level of care**
- **WATCH FOR RE-BLEEDING**

CHECK ON LEARNING

- What is the proper distance a deliberate tourniquet should be placed from the bleeding site in TFC?
- What is the difference between the need for high & tight/hasty tourniquets in CUF as opposed to deliberately placed tourniquets in TFC?
- How long should direct pressure be applied on packed hemostatic dressings?
- Why is it important to check the pulse after applying a pressure bandage?
- What additional intervention beyond packing with hemostatic dressing and wrapping with a pressure bandage is necessary to stop the bleeding from a groin wound?



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 07: AIRWAY MANAGEMENT

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

TO8 Given a combat peacekeeping or non-combat peacekeeping scenario, perform airway management during Tactical Field Care in accordance with UN TCCC Guidelines

EO45 Identify signs of an airway obstruction

EO46 Demonstrate opening the airway with the head-tilt chin-lift or jaw-thrust maneuver

EO47 Demonstrate the placement of a casualty in the recovery position in Tactical Field Care

EO48 Demonstrate the insertion of a nasopharyngeal airway (NPA) into a casualty in Tactical Field Care

EO49 Describe the technique for ventilating a casualty with a bag valve mask (BVM) in Tactical Field Care

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

➤ **AIRWAY**

RESPIRATION

CIRCULATION

HYPOTHERMIA / **H**EAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 08: RESPIRATION ASSESSMENT AND MANAGEMENT

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

TO9 Given a combat peacekeeping or non-combat peacekeeping scenario, perform assessment and management of respiration and chest trauma during Tactical Field Care in accordance with UN TCCC Guidelines

- EO50** Identify the signs and symptoms of respiratory distress
- EO51** Identify the signs and symptoms of a life-threatening chest injury
- EO52** Identify the signs and symptoms of open pneumothorax (sucking chest wound) in Tactical Field Care
- EO53** Identify the importance and implications of vented and non-vented chest seals
- EO54** Demonstrate the application of a chest seal to an open chest wound
- EO55** Identify the signs, symptoms, and initial treatment of tension pneumothorax in Tactical Field Care
- EO56** Demonstrate a needle decompression of the chest at the second intercostal space in midclavicular line
- EO57** Demonstrate a needle decompression of the chest at the fifth intercostal space in the anterior axillary line
- EO58** Identify the signs of recurring or unsuccessful treatment of tension pneumothorax

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

 **RESPIRATION**

CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

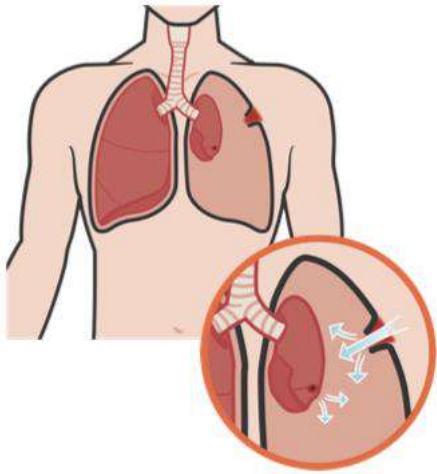
RESPIRATION OVERVIEW

RESPIRATION ASSESSMENT AND MANAGEMENT IN TACTICAL FIELD CARE

Video can be found on DeployedMedicine.com

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

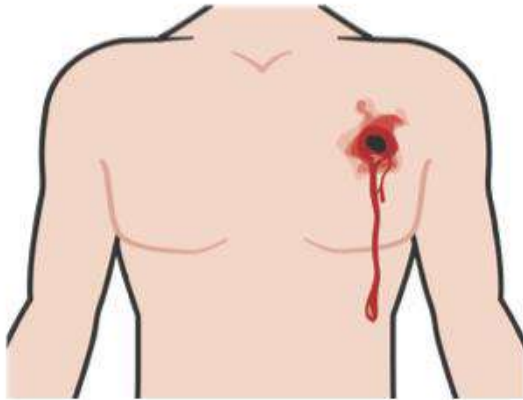
LIFE-THREATENING CHEST INJURY



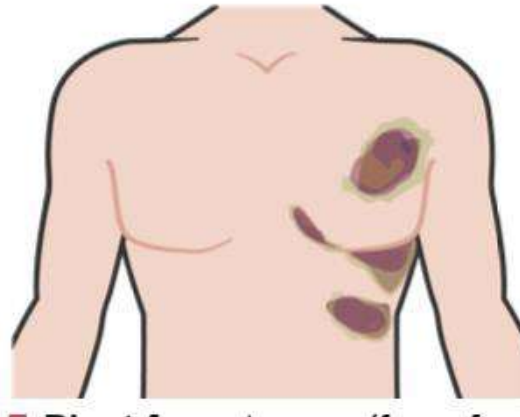
- Respiratory distress means **DIFFICULTY BREATHING** (rapid or abnormally slow breathing), in other words, it is difficult for the casualty to **get air in or out**
- The pleural space between the lungs and chest wall naturally has negative pressure, which helps the lungs to collapse (exhale) and expand (inhale)
- With either a **BLUNT** or **PENETRATING INJURY** to the chest wall or lungs, air may counteract the lung's natural tendency to expand and collapse
- This is due to positive pressure replacing negative pressure
- It results in air being trapped in the pleural space, putting pressure on the affected lung
- This forces the lung to collapse and reduces the ability to get oxygen to the body

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

LIFE-THREATENING CHEST INJURY



Gunshot or shrapnel wound to the chest
(penetrating trauma)



- **Blunt force** trauma (force from an IED explosion, high-impact vehicle accident (chest hitting steering wheel), etc.
- **Bruising, contusions** (swelling around the chest, back or rib cage), **crepitus** that is felt or heard (crackling, popping, grating)
- **ANY** deformities of the chest

REMEMBER:

- These injuries can lead to a tension pneumothorax
- This is the **second leading cause** of preventable death

M A R C H

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

IDENTIFYING TENSION PNEUMOTHORAX



Remember! Airway and Respiration are NOT addressed in CUF and must be addressed in TFC

SIGNS AND SYMPTOMS OF **PROGRESSIVE** RESPIRATORY DISTRESS:

- **Progressive** difficulty breathing (labored and rapid breathing worsening overtime)
- **Shortness** of breath
- Confusion/lightheaded and/or agitation due to lack of oxygen
- Bluish discoloration around mouth and lips
- Rapid pulse
- Distended jugular veins

M A R C H

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

SIGNS AND SYMPTOMS OF OPEN PNEUMOTHORAX OR SUCKING CHEST WOUND IN TFC

A casualty with an open chest wound will exhibit **ONE OR MORE** of the following signs and symptoms:

- A “**sucking**” or “**hissing**” sound when the casualty **inhales**
- Difficulty breathing
- A **puncture wound** of the chest
- **Froth** or **bubbles** around the injury
- Coughing up blood
- Blood-tinged sputum (spit)



Open Pneumothorax

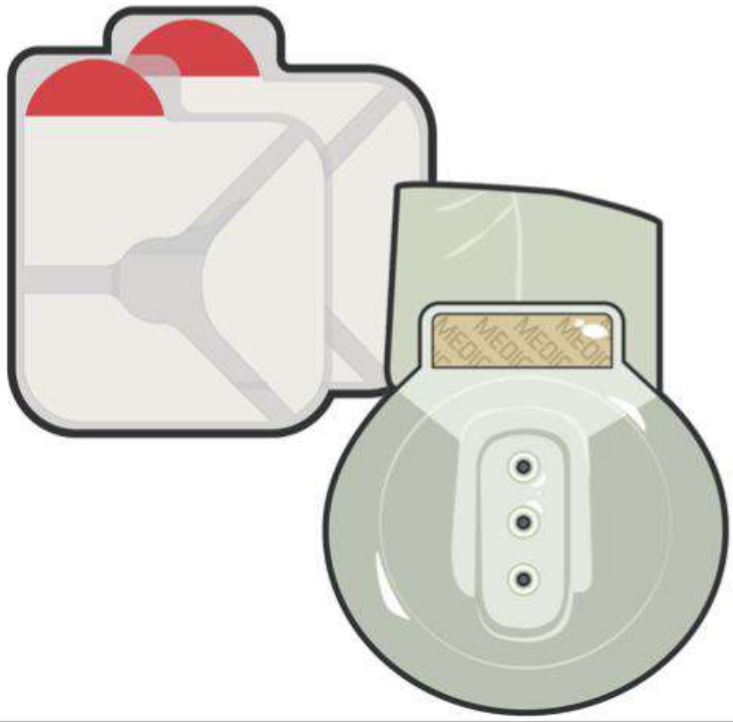
REMEMBER:

- If you are **not sure** if the wound has **penetrated** the chest wall completely, **treat the wound** as though it were an **open chest wound**
- If **multiple** wounds are found, treat them **in the order in which you find them**

M A R C H

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

VENTED CHEST SEALS



- Vented chest seals are for **treating penetrating wounds** to the chest
- Vented chest seals allow air to **escape** out of the chest while non-vented chest seals **do not**
- The injured lung will remain partially collapsed, **but the mechanics of respiration will be better**

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

VENTED **AND** NONVENTED CHEST SEALS

Recommended treatment for **open** or **sucking** chest wounds is **prompt application** of a vented chest seal:

- If vented chest seal **is NOT** available, a nonvented chest seal should be used
- Vented chest seals allow air to **escape** out of the chest while nonvented chest seals **do not**
- When the casualty inhales, the plastic should be sucked against the wound, **preventing the entry of air**
- When the casualty exhales, trapped air should be able to escape from the wound and out the valve

MONITOR the casualty **closely** and if their condition **MA RR C H worsens**, you should **suspect a tension pneumothorax**

Treat this by burping or temporarily removing the dressing



M A **R** C H

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

POSITION AFTER OCCLUSIVE DRESSING TREATMENT

- If the casualty is unconscious, place the casualty in the recovery position



- If the casualty is conscious, allow the casualty to adopt the sitting position if breathing is more comfortable



RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

CHEST SEAL

CHEST SEAL

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

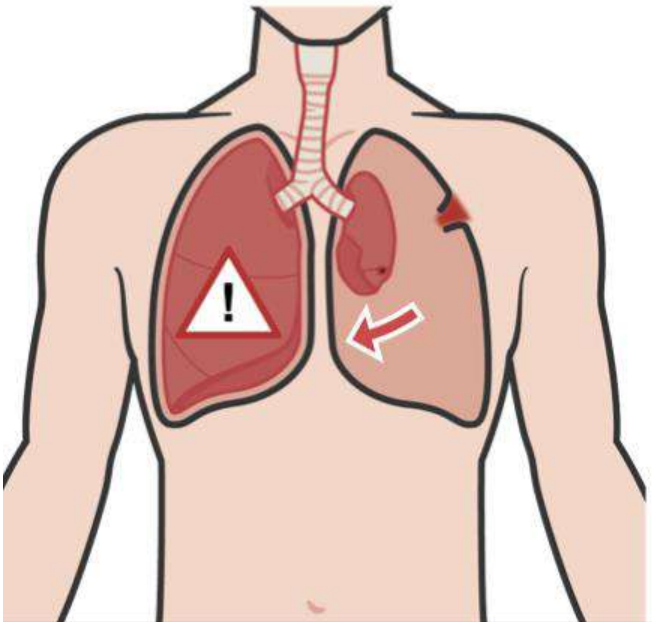
SKILL STATION

Respiration (Skill)

- Chest Seal

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

TENSION PNEUMOTHORAX



- A tension pneumothorax is the **second-leading cause** of preventable deaths on the battlefield
- As a tension pneumothorax develops, air enters the chest cavity **through the wound WITH EVERY BREATH**
- Injured lung tissue acts as a **one-way valve, TRAPPING more and more air between the lung and the chest wall**

**PRESSURE BUILDS UP AND COMPRESSES
BOTH LUNGS AND THE HEART**

M A R C H

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

CONSIDER TENSION PNEUMOTHORAX IN TACTICAL FIELD CARE



Caused by **SIGNIFICANT TORSO TRAUMA** or primary blast injury followed by **severe/progressive respiratory distress** (a respiratory rate **>20 breaths per minute**)

- The recommended treatment of suspected tension pneumothorax is **Needle Decompression of the Chest (NDC)**

M A R C H

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

UNSUCCESSFUL TREATMENT OR RECURRENCE OF TENSION PNEUMOTHORAX



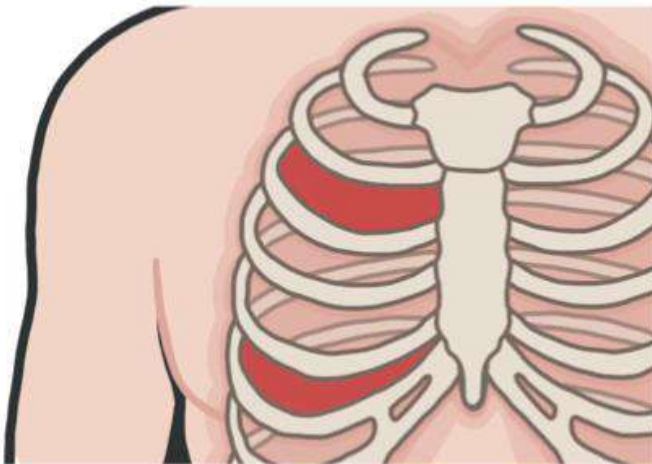
- Burp the chest seal if one is in place
- If **initial** NDC **does not** result in improvement, a second NDC should be attempted at the **alternate recommended site**
- If tension pneumothorax initially responds to NDC, but symptoms later **recur**, then **repeat NDC at the same site right beside the original NDC**
- If **no improvement** is noted with the second NDC, **proceed with** circulation assessment and treatment following the **MARCH** protocol

DO NOT put NDC through a chest seal!
Use alternate site instead

MARCH

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

NDC **SITE SELECTION**



- Site selection is based on the **mechanism of injury AND physical findings**
- Use either the **second (A)** or **fifth (B)** intercostal space (**either is preferred**)
- If the needle is used at the second intercostal space, **ensure** the site selection is **OUTSIDE** the nipple line

M A R C H

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

POSITION AFTER NDC TREATMENT

- If the casualty is unconscious, place the casualty in the recovery position
- If the casualty is conscious, allow the casualty to adopt the sitting position if breathing is more comfortable





RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

NEEDLE DECOMPRESSION OF THE CHEST

NEEDLE DECOMPRESSION OF THE CHEST

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

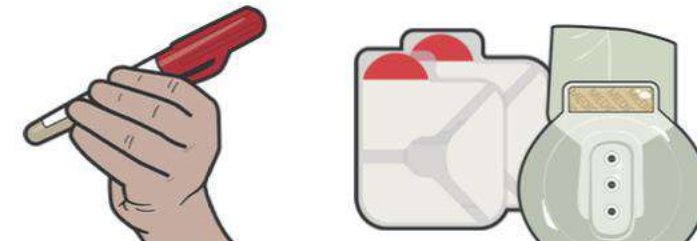
SKILL STATION

Respiration (Skill)

- Needle Decompression of Chest (NDC)

SUMMARY

- We **identified** the **signs and symptoms** of an open pneumothorax
- We **discussed** the **treatment** options for an open pneumothorax
- We **identified** the **signs and symptoms** of a tension pneumothorax
- We **discussed** the treatment for a tension pneumothorax
- **Both types** of chest injuries (sucking chest wounds and tension pneumothorax) **WILL REQUIRE** advanced evaluation by **medical personnel** and **evacuation**
- Tension pneumothorax is a **PREVENTABLE** cause of death



CHECK ON LEARNING

- What is a tension pneumothorax?
- How should you treat an open chest wound?
- What should you do if you suspect a casualty has a tension pneumothorax?



ANY QUESTIONS?

AIRWAY

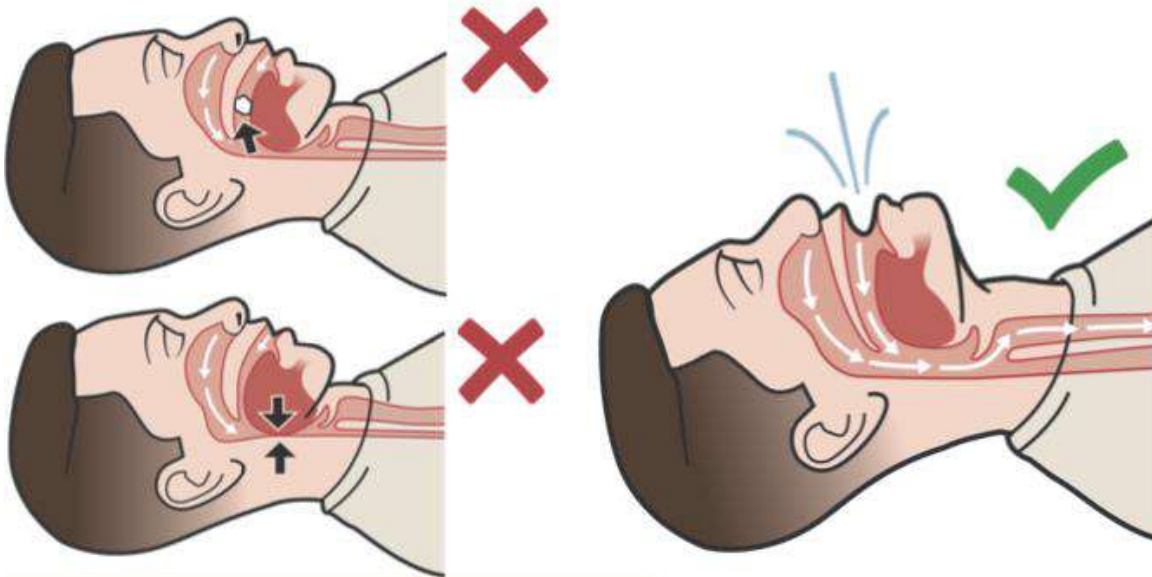
AIRWAY MANAGEMENT



- Airway obstruction on the battlefield is often due to maxillofacial trauma
- If the casualty is breathing on their own but **unconscious** or **semi-conscious**, and there is no airway obstruction, further airway management is achieved through a **Nasopharyngeal Airway (NPA)**
- **Unconscious** casualties can also lose their airway as the muscles of their tongue may have relaxed, causing the tongue to block the airway by sliding to the back of the mouth and covering the opening to the windpipe

IDENTIFYING AN OBSTRUCTED AIRWAY

IDENTIFYING OBSTRUCTED AIRWAY



IMPORTANT! Remove any visible objects, obstructing the airway, but do not perform a blind finger sweep

SIGNS AND SYMPTOMS

AIRWAY MAY BE BLOCKED:

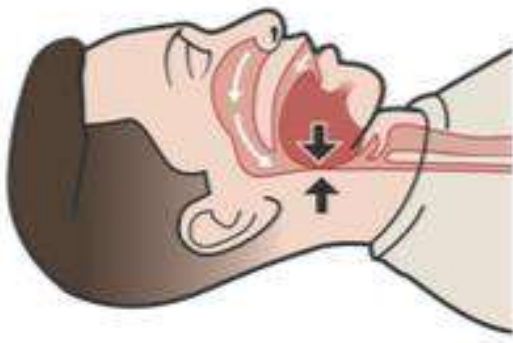
- Casualty is in distress and indicates they can't breathe properly
- Casualty is making snoring or gurgling sounds
- Visible blood or foreign objects are present in the airway
- Maxillofacial trauma (severe trauma to the face) is observed

MARCH

OPENING THE AIRWAY

IN A CASUALTY WITHOUT A FOREIGN BODY AIRWAY OBSTRUCTION, YOU CAN PERFORM THE FOLLOWING MANEUVERS:

Unconscious casualty's tongue may have **relaxed**, causing the tongue to **BLOCK** the airway by sliding to the back of the mouth and **covering the opening to the windpipe**



If you suspect that the casualty has suffered a neck or spinal injury, use the jaw-thrust method

HEAD-TILT CHIN-LIFT



JAW THRUST



MARCH



AIRWAY MANAGEMENT

HEAD-TILT/CHIN-LIFT AND JAW-THRUST MANEUVER

HEAD-TILT/CHIN-LIFT AND JAW-THRUST MANEUVER

Video can be found on DeployedMedicine.com



SKILL STATION

Airway (Skills)

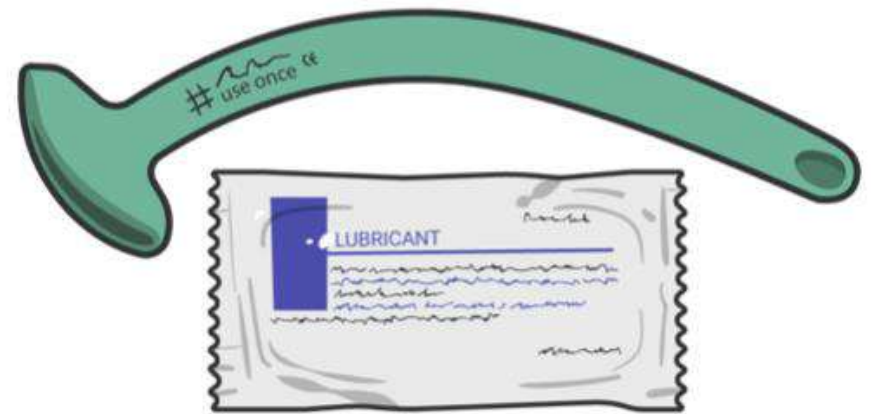
- Head-Tilt/Chin-Lift
- Jaw-Thrust Maneuver

OPENING THE AIRWAY

MANAGING THE AIRWAY

IF the casualty is breathing on their own but **unconscious** or **semi-conscious** **AND** there is no airway obstruction, further airway management is best achieved with a **nasopharyngeal airway (NPA)**

An **NPA** can be used on a **conscious** or **unconscious** casualty to help open/maintain an open airway



DO NOT attempt to insert an NPA if there is clear fluid coming from the nose or ears. This may be cerebrospinal fluid (CSF) and may be an indication of possible skull fracture.

MARCH

AIRWAY MANAGEMENT

NPA HOW-TO VIDEO

NASOPHARYNGEAL AIRWAY

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

MAINTAINING THE AIRWAY

CASUALTY POSITIONING

- If a casualty **can breathe on their own**, let them assume the best position that allows them to breathe, including sitting up
- If a casualty **can breathe on their own in a position of choice, DO NOT** force them into a position or perform airway procedures that causes them difficulties in breathing



MANAGING THE AIRWAY

MAINTAINING THE AIRWAY/RECOVERY POSITION



Casualties with **severe facial injuries** can often protect their own airways by sitting up and leaning forward



Assist a **conscious** casualty by helping them assume **any position** that **ALLOWS THEM TO BREATHE EASILY**, including sitting up

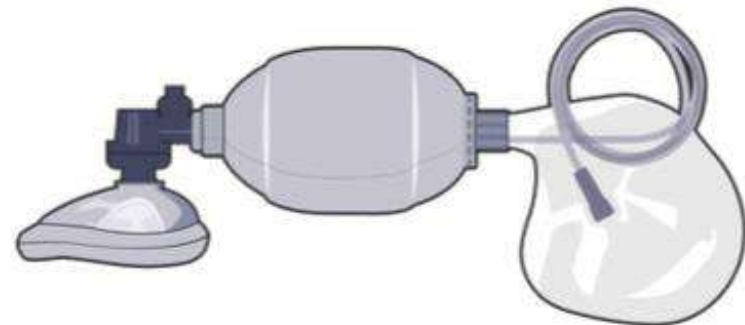


For an **unconscious** casualty not in shock, place them into the **RECOVERY POSITION**

MARCH

CASUALTY UNABLE TO BREATHE ON THEIR OWN

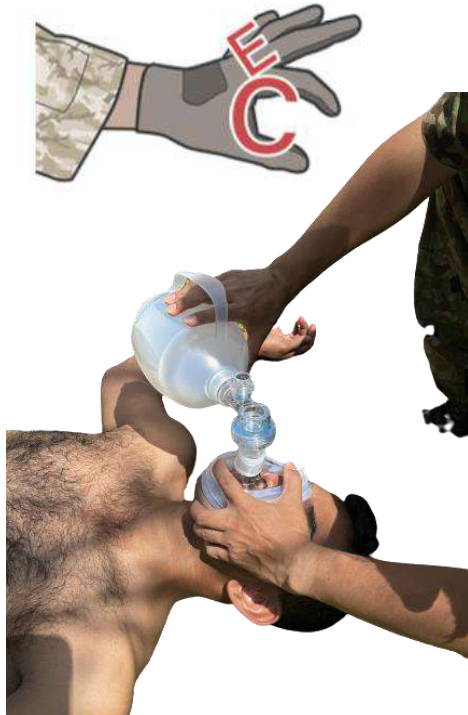
- **Medical personnel** may ask you to assist them in ventilating a patient using a **bag valve mask (BVM)**
- If respirations are noted to be reduced, provide ventilator support with BVM ventilations
- A BVM is a device that can assist a casualty with breathing (ventilation) if they are **NOT** breathing adequately on their own



MANAGING THE AIRWAY

BAG VALVE MASK (BVM)

ONE & TWO-PERSON BAG VALVE MASK (BVM) VIDEO



Video can be found on [DeployedMedicine.com](https://www.DeployedMedicine.com)

- Ventilations can be performed alone or with two people working together
- The mask is **sealed** over the casualty's mouth so that air **doesn't** escape
- Squeeze **firmly** for **1-2 seconds** and **5-6 seconds** apart

MARCH

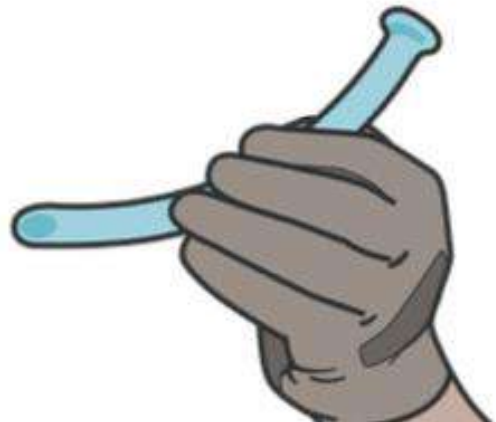
SKILL STATION

Airway (Skills)

- Recovery Position
- Nasopharyngeal Airway (NPA)
- One-Person Bag Valve Mask (BVM)/Two-Person BVM

SUMMARY

- We identified
- We opened
- We maintained and managed
- For casualties in which airway positioning and/or nasopharyngeal airways **DO NOT** successfully maintain an open airway, **notify medical personnel IMMEDIATELY**



CHECK ON LEARNING

- What is the best position for a conscious casualty who is breathing on their own?
- Why are casualties placed in the recovery position?
- What are the two methods that can be used to open an airway?
- How does an NPA provide an open (patent) airway?



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 09: **CIRCULATION / HEMORRHAGE CONTROL**

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

T10 Given a combat peacekeeping or non-combat peacekeeping scenario, perform haemorrhage control during Tactical Field Care in accordance with UN TCCC Guidelines

EO59 Identify the principles of wound packing and applying pressure bandages

EO60 Demonstrate wound packing and applying a pressure bandage

EO61 Identify progressive strategies, indications, and limitations of controlling external hemorrhage in Tactical Field Care

EO62 Identify the signs, symptoms, and considerations of a pelvic fracture

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!



YOU ARE HERE

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

 **CIRCULATION**

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

HEMORRHAGE CONTROL IN TFC

HEMORRHAGE CONTROL IN TACTICAL FIELD CARE

Video can be found on DeployedMedicine.com

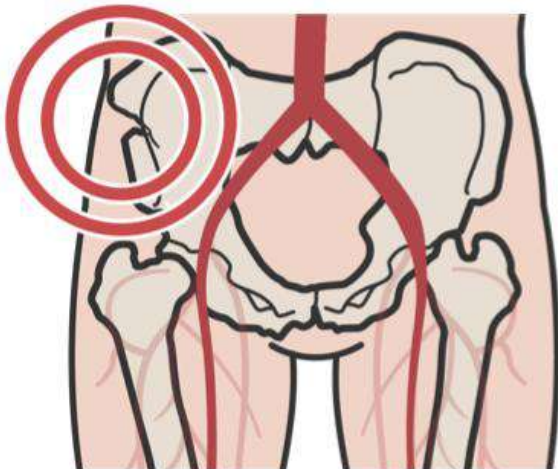
HEMORRHAGE CONTROL

PELVIC FRACTURES

Pelvic fracture may be **suspected** if the casualty's injuries are a result of blunt force or blast with **ONE OR MORE** of the following:

Physical signs suggesting a pelvic fracture:

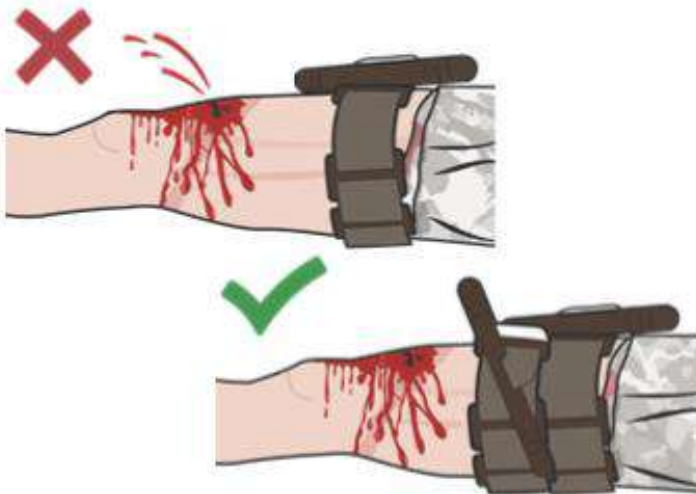
- **Pelvic pain**
- Major lower limb **amputation** **OR** lower **near amputations**
- Deformities, penetrating injuries, bruising near the pelvis
- **Pelvic instability** or **crepitus** (crinkly or grating feeling or sound under the skin)
- **Unconsciousness** or **shock**



If a pelvic fracture is **suspected**, the casualty **WILL REQUIRE** advanced evaluation by **medical personnel**

HEMORRHAGE CONTROL REASSESSMENT

- Reassess all **PREVIOUS** and **CURRENT** hemostatic dressings applied and ensure they are tight and effective
- If **ineffective**, apply a **second TQ side-by-side** with the first
- Reassess all **PREVIOUS** and **CURRENT** hemostatic dressings applied for **effectiveness**
- If you placed a TQ above a casualty's elbow, for instance, you should expect to ***find no pulse*** at the wrist below if the TQ was properly applied



HEMORRHAGE CONTROL STRATEGIES AND LIMITATIONS

EARLY CONTROL OF SEVERE HEMORRHAGE IS CRITICAL

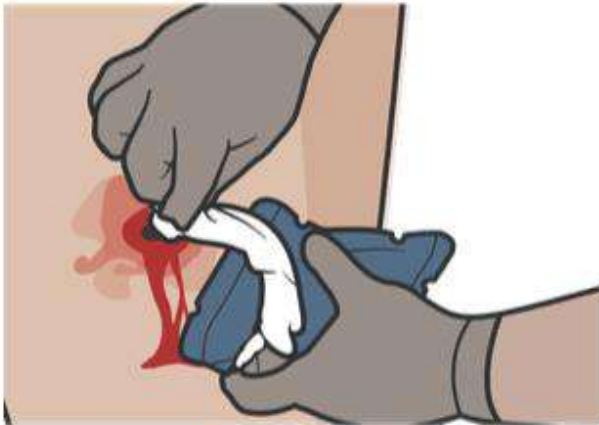
- UN TCCC recommended hemostatic dressings are to be applied **directly to the skin** in **TFC 2-3 inches above the bleeding site**
- Casualty's hemorrhage control interventions **must be FREQUENTLY REASSESSED** to ensure continued hemorrhage control



**DO NOT EVER APPLY IT
AND FORGET IT!**

HEMORRHAGE CONTROL

WOUND PACKING AND PRESSURE DRESSING



- Identify the **exact source** of bleeding
- **Pack** the wound



Apply direct pressure for
3 MINUTES



- **Secure** the bandage
- If the bandage has a pressure bar, **pull the bandage TIGHT**, and reverse it back over the top of the pressure bar, **forcing it down** onto the pad

HEMORRHAGE CONTROL WOUND PACKING

**KEEP
PRESSURE**



HOLD direct pressure on the source over



- Identify the **exact source** of bleeding and **APPLY direct pressure** as a **temporary** measure **UNTIL** gauze is placed
- Pack the wound **maintaining CONSTANT** direct pressure at the source of bleeding within **90 SECONDS** to be effective
- **HOLD** direct pressure on the gauze over the wound for at least **3 MINUTES** (**this is necessary**, even with the active ingredient in hemostatic dressings)
- When packing a large wound, more than one hemostatic gauze and/or **additional** gauze may be **needed**
- Carefully **observe** to determine if bleeding has been **controlled**

Once you are sure the bleeding has **stopped**, apply a pressure bandage

3 MINUTES

HEMORRHAGE CONTROL

PRESSURE BANDAGE REASSESSMENT

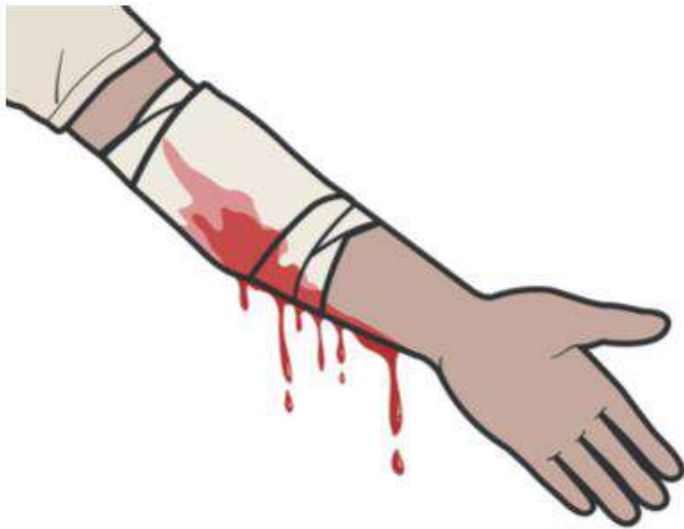


Key Points:

- Check for **circulation BELOW** the pressure bandage by **feeling for distal pulse** (a pulse below the bandage)
- If the **skin BELOW** the pressure bandage becomes **cool** to the touch, **bluish**, or **numb**, or if the **pulse** below the pressure dressing is **no longer present**, the pressure bandage may be **too tight**
- If circulation is **BLOCKED** or **STOPPED**, **loosen** and **retie** the bandage
- Dressings and bandages should be **reassessed** and checked **routinely** and **EVERY TIME** a casualty is **moved**

HEMORRHAGE CONTROL

IF THE PRESSURE BANDAGE IS INEFFECTIVE



- If the pressure bandage or hemostatic dressing is **ineffective**, **APPLY** a hemostatic dressing **2-3 inches above** the bleeding site
- If the pressure bandage is **ineffective AND/OR blood soaked**, **REPLACE** pressure dressing with **hemostatic dressing**
- Pack the wound, **maintaining CONSTANT** direct pressure at the source of bleeding within **90 SECONDS** to be effective

PRESSURE BANDAGE

PRESSURE BANDAGE

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

SKILL STATION

Circulation/Hemorrhage Control (Skills)

- Wound Packing with Hemostatic Dressing and Pressure Bandage

SUMMARY

- If not already done, **clearly mark ALL TQs** with the **time** of TQ application and document that on the **Casualty Card**
- Check for radial pulse
- Assess for shock



CHECK ON LEARNING

- During Circulation in the MARCH PAWS sequence, what interventions should be reassessed?
- What are the signs and symptoms of a pelvic fracture?



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 10: SHOCK RECOGNITION

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

T11 Describe shock assessment in Tactical Field Care in accordance with UN TCCC Guidelines

EO63 Identify the signs, symptoms, and management steps of shock in a trauma casualty with life-threatening bleeding

EO64 Identify the importance of level of consciousness and radial pulse as indicators of shock in Tactical Field Care

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

 **CIRCULATION**

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

SHOCK RECOGNITION

SHOCK RECOGNITION

Video can be found on DeployedMedicine.com

CIRCULATION/SHOCK

SHOCK

- Shock is **inadequate blood flow to body tissues**.
Inadequate blood volume inside the circulatory system results in inadequate oxygen delivery to the body's cells



- As cells cease to function, tissues cease to function, then organs cease to function, and eventually the **whole body will fail** and **DEATH** follows

IMPORTANT CONSIDERATIONS:

Shock will lead to the casualty's death if not quickly recognized and treated

CIRCULATION/SHOCK

SHOCK

- Caused by a decrease in the amount of blood volume circulating in the casualty's blood circulatory system
- Shock can have many causes – low blood volume or hypovolemia (dehydration or blood loss), low blood pressure (massive infection), heart failure, or neurologic damage
- Usually caused by severe bleeding, but it can also be caused by severe burns (second- and third-degree burns on 20 percent or more of the body surface)
- On the battlefield, assume shock is from severe blood loss (also called hemorrhagic shock)

Hemorrhagic shock can result in the casualty's **death**



M A R C H

CIRCULATION/SHOCK

GENERAL INDICATORS OF SHOCK

SIGNS AND SYMPTOMS OF SHOCK INCLUDE:

- **Mental confusion**
- **Weak or absent radial pulse**
- Rapid breathing
- Nausea
- Sweaty, cool, clammy skin
- Excessive Thirst
- Pale/grey skin
- Previous severe bleeding



M A R C H

CIRCULATION/SHOCK

GENERAL INDICATORS OF SHOCK

IMPORTANT Indicator:

- Mental confusion



IMPORTANT Indicator:

- Weak or absent radial pulse

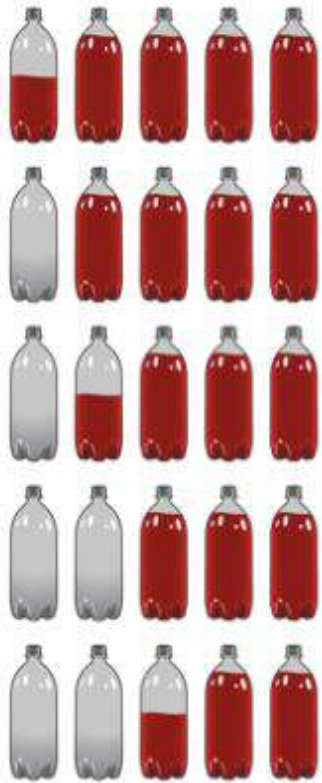


If **BOTH** indicators exist, the casualty has lost a **SIGNIFICANT** amount of blood

As previously stated, shock will lead to the casualty's **death** if not quickly recognized and treated

CIRCULATION/SHOCK

GENERAL INDICATORS OF SHOCK



Blood Volume	Blood Loss	Signs/Symptoms	Effect/Outcome
4 liter bottles full, 1 bottle 1/2 empty	500cc	Possible increased HR	Usually no effects
4 liter bottles full, 1 empty	1000cc	Radial pulse >100 Breathing probably normal	Unlikely to die from this amount of loss
3 1/2 bottles full, 1 1/2 empty	1500cc	Change in mental status Weak radial pulse >100 Increased respirations	Still unlikely to die
3 bottles full, 2 empty	2000cc	Confusion and lethargy Very weak radial pulse >120 High respiratory rate >35	Very possibly fatal if not managed
2 1/2 bottles full and 2 1/2 bottles empty	2500cc	Unconscious No radial pulse, carotid pulse, HR >140 Respirations > 35	Fatal without immediate and rapid interventions

M A R C H

CIRCULATION/SHOCK

PREVENT SHOCK BY CONTROLLING BLEEDING

#1- Reassess to confirm all bleeding control measures are still effective

Ensure TQs and pressure dressings remain tight

- *Check radial pulse*



- It is better to prevent shock with hemorrhage control than to treat it
- If shock is present, though, the most critical first step is to control the bleeding
- Internal bleeding from chest or abdominal trauma may not be controllable, and shock may develop later, so continuously assess the casualty
- Medical personnel will provide other treatments, but you can save them time if extremal bleeding is controlled

DO NOT WAIT for signs and symptoms of shock to occur

MARCH

CIRCULATION/SHOCK

ASSESS/MONITOR FOR **HEMORRHAGIC SHOCK**

- Assess for signs and symptoms of shock as soon as hemorrhage is controlled, the airway is open, and respirations have been managed
- The best indicators of shock are a decreased state of consciousness (if casualty has not suffered a head injury) and/or an abnormal, weak, absent radial pulse
- Assess for hemorrhagic shock (altered mental status in the absence of brain injury and/or weak or absent radial pulse)
- Reassess/monitor for changes in the level of consciousness by checking for alertness or responsiveness to verbal or physical stimulation



M A R C H

SHOCK RECOGNITION

REASSESS



Level of consciousness

Check casualty every 15 minutes for **AVPU**

Alertness - Knows who, where they are

Verbal - Orally responds to verbal commands

Pain - Level of pain felt when the sternum is
briskly rubbed with the knuckle (if needed)

Unconscious - Unresponsive

Decreasing AVPU could indicate condition worsening

Breathing rate

Monitor respirations

- Thoracic trauma may indicate tension pneumothorax (needle decompression of the chest required)
- If a casualty becomes unconscious or their breathing rate drops below two respirations every 15 seconds, insert a nasopharyngeal airway

CIRCULATION/SHOCK

SHOCK MANAGEMENT



- Fluids by mouth are permissible if the casualty is conscious and can swallow
- Evacuate the casualty if medical help is not available
- Place casualty in recovery position

Reassess the casualty frequently
for the onset of shock

CIRCULATION/SHOCK

HYPOTHERMIA **MANAGEMENT**

REMEMBER:

Keep the casualty **warm** and prevent hypothermia. Even in **very hot environments**, a casualty in **hemorrhagic shock** (blood loss) is at **EXTREME** risk for hypothermia

- Place a poncho or blanket under the casualty to protect from the temperature or dampness of the ground
- Cover the casualty with a survival blanket or other available materials to keep them warm and dry



SUMMARY

IMPORTANT

Indicator:

- Mental confusion

IMPORTANT

Indicator:

- Weak or absent radial pulse

- We **defined** shock
- We **identified** indicators of shock
- We discussed **prevention measures** for shock
- We discussed the **management** of shock
- We **introduced** hypothermia



CHECK ON LEARNING

- What is shock?
- What are the best indicators of shock?
- What is the most important action to prevent hemorrhagic shock?



ANY QUESTIONS?

FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 11: HYPOTHERMIA PREVENTION

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

T12 Given a combat peacekeeping or non-combat peacekeeping scenario, perform hypothermia prevention measures on a trauma casualty during Tactical Field Care in accordance with UN TCCC Guidelines

EO65 Identify the progressive strategies, indications, and limitations of hypothermia prevention of a trauma casualty in Tactical Field Care

EO66 Demonstrate active external warming hypothermia prevention measures on a trauma casualty

EO67 Identify passive hypothermia prevention measures on a trauma casualty

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

 **HYPOTHERMIA / HEAD INJURIES**

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

HYPOTHERMIA PREVENTION

HYPOTHERMIA



- Hypothermia is the decrease in body temperature
- Even a small decrease in body temperature can interfere with blood clotting and increase the risk of bleeding to death
- Casualties in shock are unable to generate body heat effectively
- Hypothermia is a problem for casualties with haemorrhagic shock, even with warm, ambient temperatures



IMPORTANT CONSIDERATIONS:

A lower body temperature may not be an indicator of hypothermia; it may be due to exposure to a cold environment

HYPOTHERMIA PREVENTION

HYPOTHERMIA PREVENTION



- Minimize the casualty's exposure to the elements
- Keep protective gear on or with the casualty if feasible
- Replace wet clothing with dry, if possible



You can better **prevent** hypothermia by getting the casualty onto an insulated surface as soon as possible

HYPOTHERMIA PREVENTION

HYPOTHERMIA PREVENTION

Get the casualty onto an insulated surface as soon as possible.

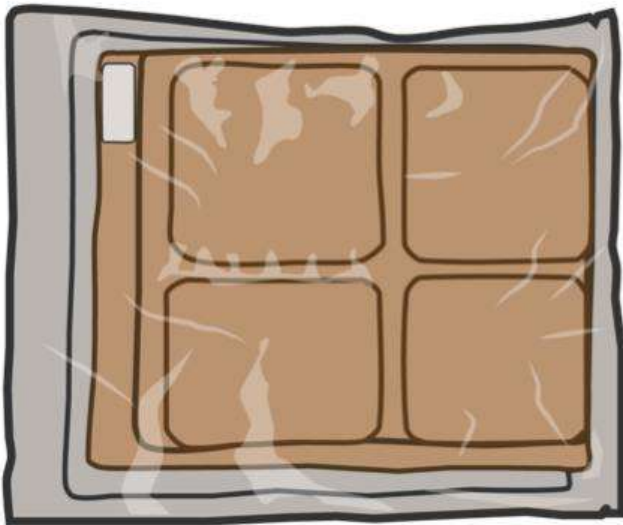


- Hypothermia is much easier to prevent than to treat
- Begin hypothermia prevention as soon as possible
- Decreased body temperature interferes with blood clotting and increases the risk of bleeding
- Blood loss can cause a significant drop in body temperature, even in hot weather

MARCH

HYPOTHERMIA

ACTIVE HYPOTHERMIA PREVENTION



Your medical personnel will distribute the active hypothermia blankets based on unit mission and load

- Active hypothermia blankets are activated when their heating elements are exposed to air
- Active hypothermia blankets are applied to a casualty who cannot generate their own heat, but not directly on their skin because the activated blankets can cause burns

M A R C H

HYPOTHERMIA

ACTIVE HYPOTHERMIA PREVENTION

Apply the active warming blanket from the active hypothermia blanket to the casualty's torso (**not directly on the skin**), and cover the casualty with the passive hypothermia shell



KEY POINTS:

- If an active hypothermia blanket is not available, a combination of the passive warming blanket and an active warming blanket may also be used
- Active hypothermia treatment uses heating sources to warm the casualty
- Oxygen levels at higher altitudes may not be enough to sustain the chemical reaction required to generate heat

MARCH



HYPOTHERMIA

PASSIVE HYPOTHERMIA PREVENTION



Passive hypothermia materials provide heating by:

- Keeping the casualty's body heat contained in the passive material
- Keeping the casualty off the ground

M A R C H

HYPOTHERMIA

PASSIVE HYPOTHERMIA PREVENTION

Place a poncho or blanket under the casualty to protect them from the temperature or dampness of the ground

- Passive hypothermia prevention does not reverse the hypothermic process
- If no rewarming equipment is available, then use dry blankets, poncho liners, sleeping bags, or anything that will retain heat and keep the casualty dry
- Keep the casualty off the ground



KEY POINTS:

- Blood loss can cause a significant drop in body temperature, even in hot weather
- Wrap the entire blanket-like shell (or passive heating materials) completely around the casualty, including the head
- Do not cover the face

MARCH

HYPOTHERMIA PREVENTION VIDEO

HYPOTHERMIA PREVENTION

Video can be found on DeployedMedicine.com

SKILL STATION

Hypothermia (Skill)

- Active/passive external warming hypothermia prevention

SUMMARY

- We defined hypothermia
- We discussed active hypothermia management/prevention
- We discussed passive hypothermia management/prevention

KEY POINTS:

- **Passive** hypothermia prevention **DOES NOT** reverse the hypothermic process
- **Active** hypothermia, when at high altitudes, may not be enough to sustain the chemical reaction required to generate heat



CHECK ON LEARNING

- Why is it important to keep a trauma casualty warm even if it is a hot environment?
- What is the difference between active and passive hypothermia management?

ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 12: HEAD INJURIES

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

T13 Identify a head injury in accordance with UN TCCC Guidelines

EO68 Identify external forces that can cause a head injury

EO69 Identify signs and symptoms of a head injury

EO70 Identify the critical observations that should be reported to medical personnel for trauma casualties with a suspected head injury in accordance with the Military Acute Concussive Evaluation 2 (MACE 2).

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!



YOU ARE HERE

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

 **HYPOTHERMIA / HEAD INJURIES**

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

HEAD INJURIES

POTENTIAL MECHANISMS OF HEAD INJURY

Head injury is trauma to the **scalp, skull, and/or brain**

- Involvement in a vehicle **blast event, collision, or rollover**
- Presence within **50 METERS** of a **blast (inside or outside)**
- A direct blow to the head or witnessed loss of consciousness
- Exposure to **more than one blast event** (the Service member's commander will direct a **medical evaluation**)



OTHER EXTERNAL FORCES MAY ALSO LEAD TO HEAD INJURIES

HEAD INJURIES

SIGNS AND SYMPTOMS OF HEAD INJURY

IED Checklist

Injury	Physical damage to the body or body part of a Service member?	(Yes/No)
Evaluation	H – Headaches and/or vomiting?	(Yes/No)
	E – Ear ringing?	(Yes/No)
	A – Amnesia, altered consciousness, and/or loss of consciousness?	(Yes/No)
	D – Double vision and/or dizziness?	(Yes/No)
	S – Something feels wrong or is not right?	(Yes/No)
Distance	Was the Service member within 50 meters of the blast? Record the distance from the blast.	(Yes/No) Not Applicable

HEAD INJURIES

SIGNS AND SYMPTOMS REQUIRING MACE 2*

EVALUATION BY MEDICAL PERSONNEL

Evaluations are **most effective** when done **as soon as possible** after the injury. **Traumatic brain injury (TBI)** is likely if the casualty shows signs of **ANY** of the following:

- Deteriorating level of consciousness
- Double vision
- Increased restlessness; combative or agitated behavior
- Repeat vomiting
- Results from a structural brain injury detection device (if available)
- Seizures
- Weakness or tingling in arms or legs
- Severe or worsening headache



MACE 2
Military Acute Concussion Evaluation

Use MACE 2 as close to time of injury as possible.

Service Member Name: _____
DoD/VED/PUSSN: _____ Branch of Service & Unit: _____
Date of Injury: _____ Time of Injury: _____
Examiner: _____
Date of Evaluation: _____ Time of Evaluation: _____

Purpose: MACE 2 is a multimodal tool that assists providers in the assessment and diagnosis of concussion. The scoring, coding and steps to take after completion are found at the end of the MACE 2.

Timing: MACE 2 is most effective when used as close to the time of injury as possible. The MACE 2 may be repeated to evaluate recovery.

RED FLAGS

Evaluate for red flags in patients with Glasgow Coma Scale (GCS) 13-15.

➤ Deteriorating level of consciousness	➤ Results from a structural brain injury detection device (if available)
➤ Double vision	➤ Seizures
➤ Increased restlessness, combative or agitated behavior	➤ Weakness or tingling in arms or legs
➤ Repeat vomiting	➤ Severe or worsening headache

Defer MACE 2 if any red flags are present. Immediately consult higher level of care and consider urgent evacuation according to evacuation precedence/Tactical Combat Casualty Care (TCCC).

➤ **Negative for all red flags.**
Continue MACE 2, and observe for red flags throughout evaluation.

Revised 10/2018 dvbio.doea.mil Page 1 of 14

SUMMARY

- We **defined** head injury
- We discussed **mechanisms of injury**
- We discussed **signs and symptoms**
- We identified **critical observations to report to higher medical personnel**



CHECK ON LEARNING

- What external forces can cause a head injury?
- What are the critical observations that should be reported to medical personnel for trauma casualties with a suspected head injury, in accordance with MACE 2?



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 13: EYE INJURIES

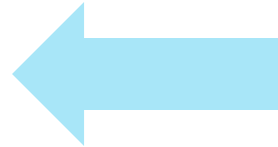
UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

T14 Given a combat peacekeeping or non-combat peacekeeping scenario, perform assessment and initial treatment of penetrating eye trauma during Tactical Field Care in accordance with UN TCCC Guidelines

EO71 Identify basic care of an eye injury in accordance with UN TCCC Guidelines

EO72 Demonstrate the application of a rigid eye shield to a trauma casualty in Tactical Field Care

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!



YOU ARE HERE

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

 **HYPOTHERMIA / HEAD INJURIES**

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

EYE INJURIES OVERVIEW

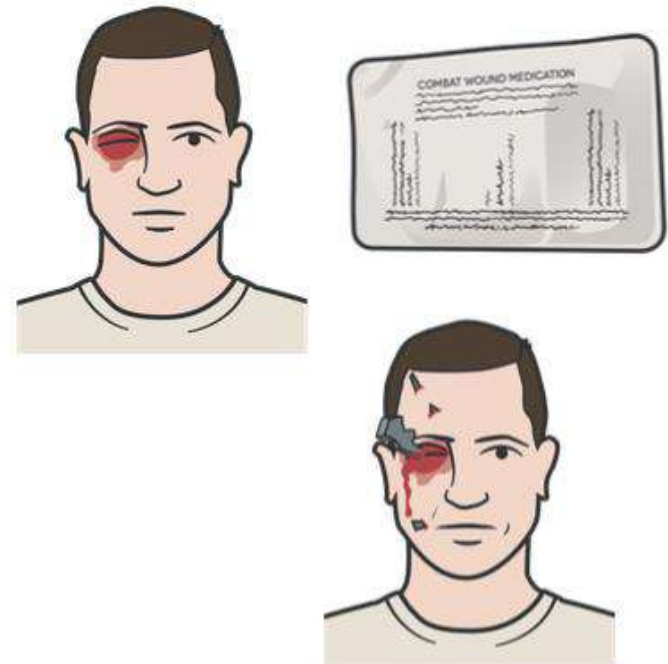
EYE INJURIES

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

EYE INJURIES

WHEN TO SUSPECT A PENETRATING EYE INJURY

1. **Bleeding** surrounding the eye, **inside** the eyeball; or **coming from** the eyeball
2. **Obvious penetration** of **shrapnel** or **debris** into the eyeball or eye socket
3. **Protruding objects** from the globe of the eyeball
4. **Swelling** or **lacerations** of the globe of the eyeball
5. **Protrusion** of the **globe of the eyeball** from the eye socket
6. **Reduced vision** and **swelling** of the eye area
7. **Misshapen** or **distorted parts** of the eye



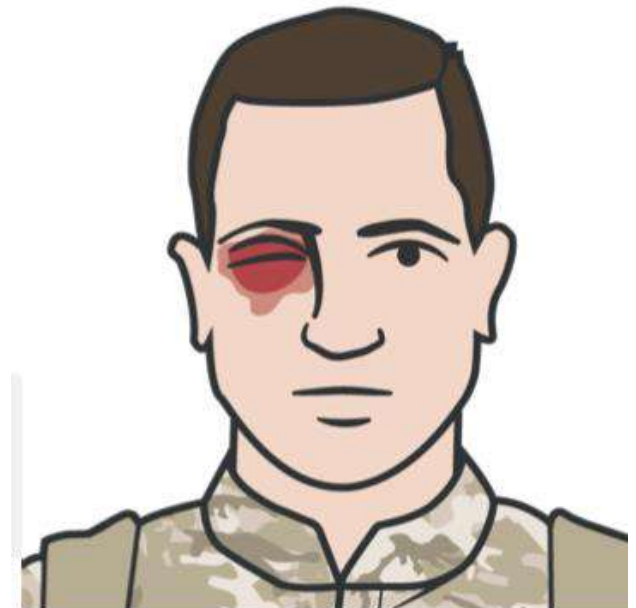
EYE INJURIES

IF A **PENETRATING EYE INJURY** IS NOTED OR SUSPECTED

1. Perform a rapid field test of visual acuity and document findings
2. Cover the affected eye with a rigid eye shield (**NOT a pressure patch**)

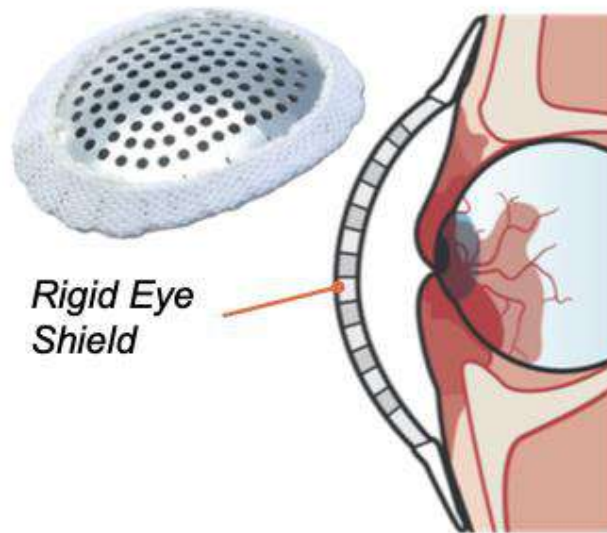
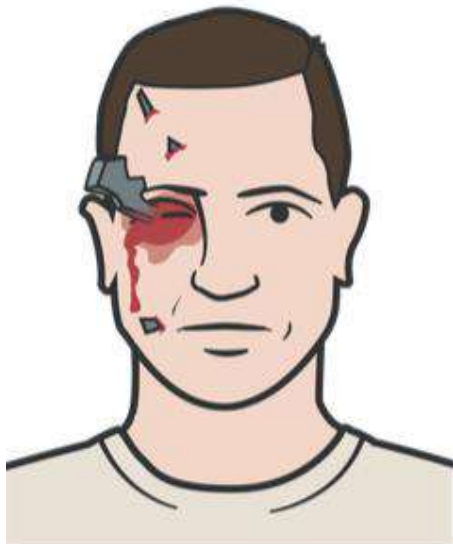
REMEMBER

- All treatments performed must be documented in the casualty's Cas Card



EYE INJURIES

PROTECTING THE EYE



*Rigid Eye
Shield*

Apply a rigid eye shield

- When penetrating eye trauma due to shrapnel is suspected, it is critically important to prevent manipulation or additional trauma to the eye that might cause further damage to the eye

IMPORTANT!

DO NOT APPLY PRESSURE

- Avoid/prevent manipulation or additional trauma to the eye that might cause further damage
- Pressure on the eye could force the interior contents of the eye out of the eyeball through a cut or laceration

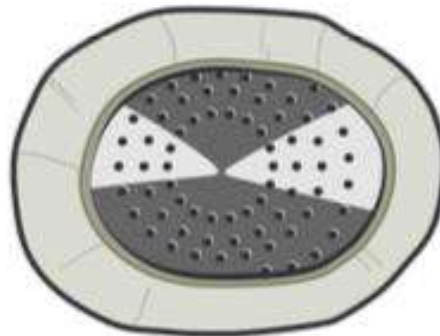
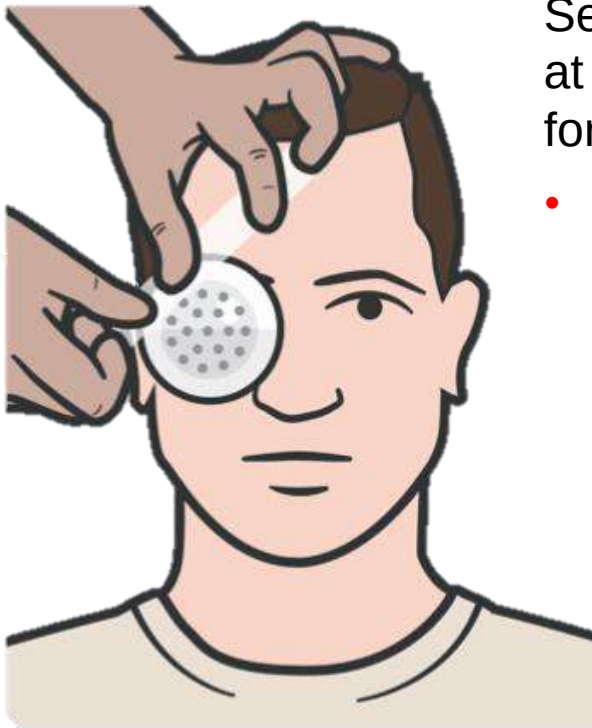
EYE INJURIES

APPLYING RIGID EYE SHIELD

The rigid eye shield is found in BFAK; if eye shield is not available, use casualty's tactical eyewear to protect the injured eye

Secure the rigid eye shield with tape at 45-degree angles across the forehead and cheek

- Do **NOT** cover both eyes unless both eyes are injured



REMEMBER

- Rigid eye shields should be placed over both eyes only when you are sure or at least strongly suspect that both eyes have been injured
- If the casualty is conscious, request Medic assistance for administration of the WMP

EYE INJURIES

DOCUMENT TREATMENT



- Document all assessments and treatment on the **Casualty Card**
- Be sure to include any medications administered and the time administered

APPLYING THE RIGID EYE SHIELD

RIGID EYE SHIELD APPLICATION

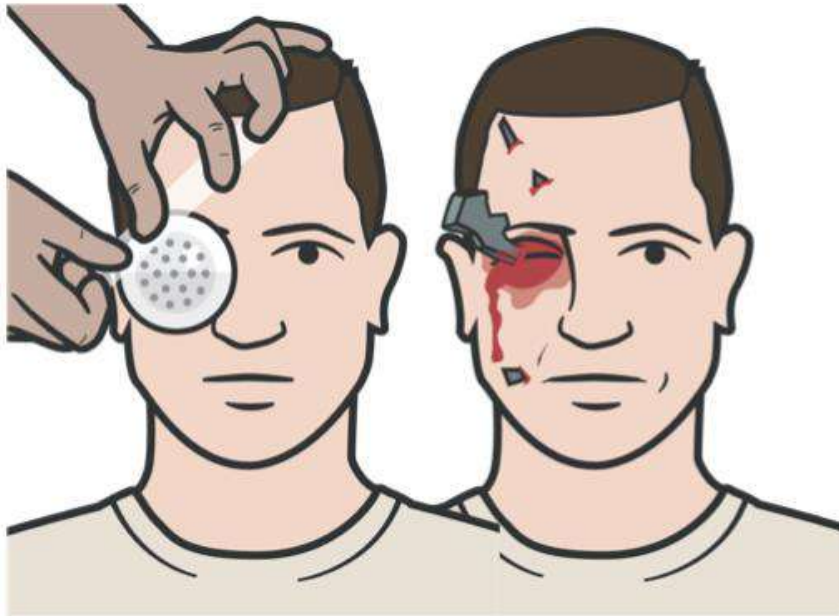
Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

SKILL STATION

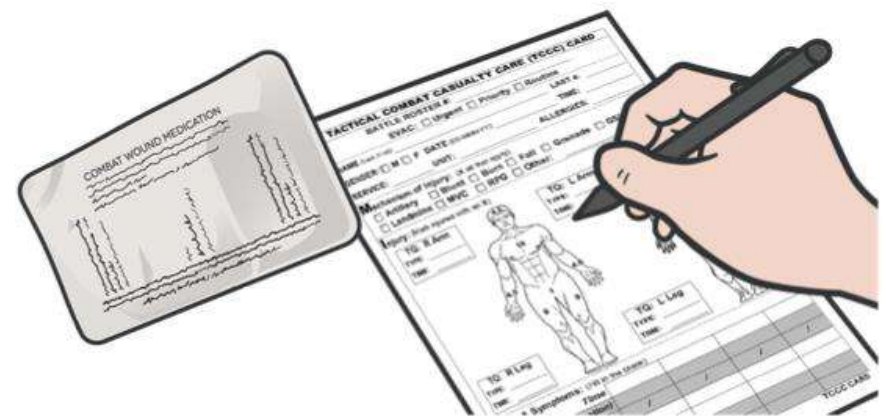
Rigid Eye Shield (Skills)

- Rigid Eye Shield

SUMMARY



- We identified **eye injuries**
- We discussed eye injury **treatment**
- We discussed **applying** an eye shield
- We discussed **documentation**



CHECK ON LEARNING

- What kind of dressing should be used on penetrating eye trauma with an impaled object?
- True or False: Protecting the injured eye with an eye shield is just as safe as using a patch or a pressure dressing.
- True or False: Only the injured eye should be covered with an eye shield.



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 14: ANALGESICS AND ANTIBIOTICS

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

T15 Given a combat peacekeeping or non-combat peacekeeping scenario, recommend analgesia administration during Tactical Field Care in accordance with UN TCCC Guidelines

EO73 Assist Medic to identify the indications and considerations of the analgesia approaches in Tactical Field Care

EO74 Assist Medic to identify the indications, contraindications, and administration methods of acetaminophen in Tactical Field Care

EO75 Assist Medic to Identify the indications, contraindications, and administration methods of analgesics (pain medications) in Tactical Field Care

EO76 Assist Medic in administration of a Wound Medication Pack in Tactical Field Care

T16 Given a combat peacekeeping or non-combat peacekeeping scenario, assist Medic to perform antibiotic administration during Tactical Field Care in accordance with UN TCCC Guidelines

EO77 Assist Medic to identify the evidence and considerations for early antibiotic administration in Tactical Field Care

EO78 Assist Medic to identify the indications, contraindications, and administration methods of antibiotics in Tactical Field Care

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!



YOU ARE HERE

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING **#1 Priority**

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / **H**EAD INJURIES

AFTER LIFE-THREATENING

➤ **P**AIN

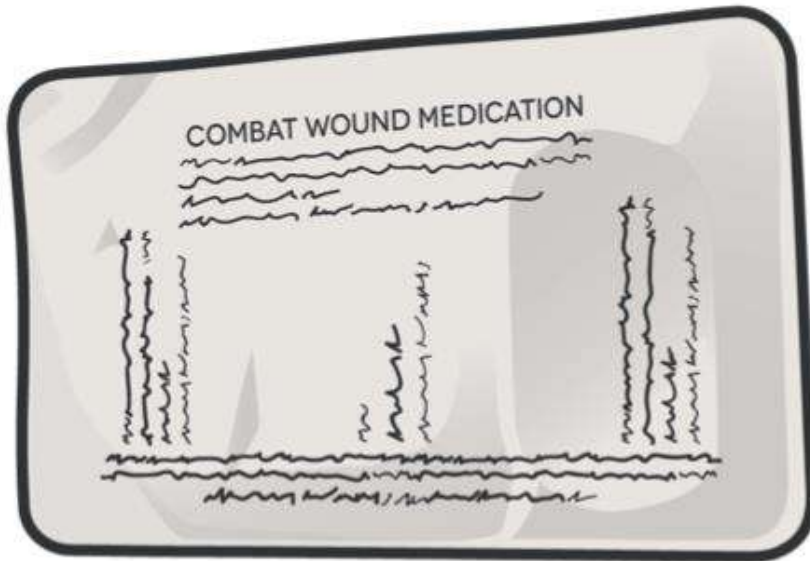
➤ **A**NTIBIOTICS

WOUNDS

SPLINTING

PAIN MEDICATION & ANTIBIOTIC ADMINISTRATION

EXAMPLE OF A WOUND MEDICATION PACK (WMP)



WMP

- Found in Medics kit
- Contains medication taken by mouth
- Document all medications administered (and time given) on UN Casualty Card

PAIN MEDICATION & ANTIBIOTIC ADMINISTRATION

WMP PAIN MANAGEMENT CONSIDERATIONS

**Examples of pain medication
(#1 and #3)
antibiotic (#2)**



1

acetaminophen
pain management



2

moxifloxacin
antibiotic



3

meloxicam
anti-inflammatory

ANALGESIA ADMINISTRATION OVERVIEW

ANALGESIA ADMINISTRATION **FMA may ONLY assist a Medic**

Remember other methods of pain control:

- **Splinting**
- **Wound dressing**
- **Burn covering**
- **Distraction and reassurance**

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

ANTIBIOTICS OVERVIEW

ANTIBIOTICS ADMINISTRATION **FMA may ONLY assist a Medic**

Video can be found on DeployedMedicine.com

PAIN MEDICATION & ANTIBIOTIC ADMINISTRATION

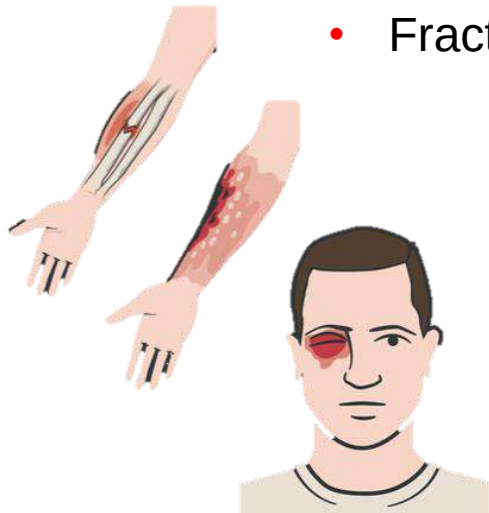
WOUND MEDICATION PACK

- Mild to moderate pain
- Casualty is still able to fight
- Casualty should take all three medications in WMP

COMBAT WOUND MEDICATION PACK

Video can be found on
DeployedMedicine.com

- Fractures



- Burns

- Eye Injuries

Note: If casualty has wounds or pain severe enough to render them unable to fight, the Medic has other options to treat pain

These meds will generally require that the casualty be disarmed, as they can result in the alteration of a casualty's mental status

PAIN MEDICATION & ANTIBIOTIC ADMINISTRATION

WHEN TO ASSIST THE MEDIC TO GIVE WMP



GIVE

- Conscious and able to swallow
- Has mild to moderate pain
- Is still able to fight if needed
- Has penetrating wounds or break in the skin



DON'T GIVE

- Unable to swallow or take oral meds (unconscious or severe facial trauma/burns)
- Known allergies

Refer to Medic if unconscious

Note: If the casualty has a break in the skin resulting from a traumatic injury, the casualty should take the WMP; otherwise, consult with Medic before taking

SKILL STATION

Analgesia/Antibiotics(Skills)

- WMP

SUMMARY

- Only a Medic may administer drugs assisted by FMA
- Battlefield wounds can be very dirty and susceptible to infection; early administration of antibiotics may reduce the chance of later infections
- Wound infections can kill the casualty or delay their recovery
- WMP should be given **ASAP** for wounds **after life-threatening** issues have been addressed



WMP should be given for any
penetrating wounds

CHECK ON LEARNING

- FMA may give drugs?
- True or False: The WMP contains pain medication and antibiotics.
- How should the WMP be taken?
- Who should take the WMP?



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 15: WOUND MANAGEMENT

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

T17 Given a combat peacekeeping or non-combat peacekeeping scenario, perform assessment and initial management of wounds during Tactical Field Care in accordance with UN TCCC Guidelines

EO79 Identify wound management considerations in Tactical Field Care

EO80 Demonstrate application of wound dressings on a trauma casualty in Tactical Field Care

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!



YOU ARE HERE

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

WOUND MANAGEMENT

CONTINUED REASSESSMENT

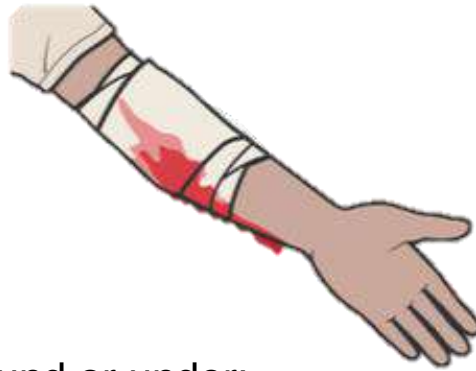
Once applied, continue to check the casualty's hemorrhage control interventions and wound management; do not apply and forget about it!

All wounds must be **FREQUENTLY REASSESSED**
to ensure continued hemorrhage control

**BLEEDING IS THE #1 CAUSE OF PREVENTABLE
DEATH ON THE BATTLEFIELD**

WOUND MANAGEMENT

CONFIRM ALL WOUNDS ARE ACCOUNTED FOR



Observe for blood flowing around or under:

- TQs, bandages, and dressings

If bleeding has not been controlled:

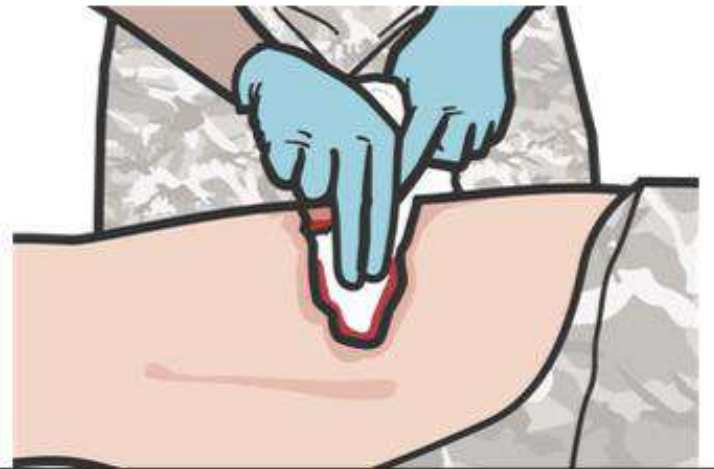
- Tighten the TQ
- Tighten the pressure bandages
- Redress the wounds
- Reassess prior life-threatening wounds to ensure bleeding is still controlled

WATCH FOR REBLEEDING!

WOUND MANAGEMENT

TREAT FOR RE-BLEEDING

- Pack any wounds that continue to bleed with hemostatic dressing
- Once applied (with pressure for 3 minutes), carefully **observe** for blood continuing to flow from under the gauze to determine if bleeding has been controlled
- Once you are sure the bleeding has stopped, apply a **pressure bandage** over the hemostatic dressing



ALWAYS REASSESS TREATMENT!

WOUND MANAGEMENT

DRESSINGS AND BANDAGES FOR MINOR WOUNDS



Dress any previously untreated wounds by applying (or packing) gauze with direct pressure

- Non-life-threatening bleeding usually does not need hemostatic dressings
- If no dressings or gauze are available, use clean dry cloth (torn clothing, cravats, etc.)

Minor wounds include:

- Minor lacerations
- Abrasions (road rash)

This includes major wounds that are no longer bleeding, such as:

- Amputation stumps
- Gunshot wounds that required TQ
- Major lacerations
- Shrapnel wounds (still in place)
- Impaled objects

WOUND MANAGEMENT

REASSESS APPLIED BANDAGES

Assess all applied bandages for:

- **Increased** pain
- Pale or bluish **skin**
- **Pulse**

This might indicate an emergency!

Ensure the applied bandage **isn't too tight**; loosen as needed while keeping the bleeding controlled



DO NOT EVER APPLY IT AND FORGET IT!

MARCH PAWS

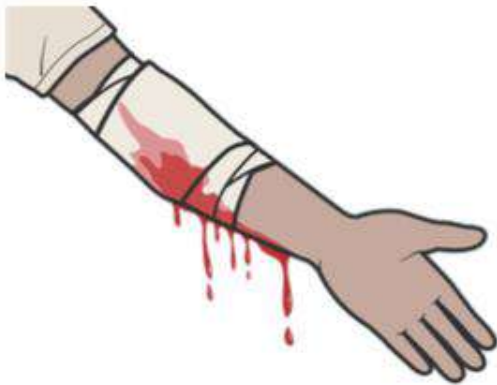
SKILL STATION

Wound Management (Skill)

- Wound dressing



SUMMARY



- We defined **reassessment**
- We discussed **re-bleeding**
- We discussed treatment for **minor wounds**
- We discussed **reassessing** bandages



CHECK ON LEARNING

- Why should all dressed wounds be continuously reassessed?
- When should minor wounds be addressed?

ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 16: BURN TREATMENT

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

T18 Given a combat peacekeeping or non-combat peacekeeping scenario, perform assessment and initial treatment of burns during Tactical Field Care in accordance with UN TCCC Guidelines

EO81 Identify the specific scene safety issues and actions required of a trauma casualty with burns, before evaluation and care of the casualty

EO82 Identify the severity of burn in accordance with the conventional burn classification

EO83 Identify how to estimate the body surface area burned using the Rule of Nines

EO84 Demonstrate the application of a dry dressing to a burn casualty in accordance with UN TCCC guidelines

EO85 Demonstrate techniques used to prevent heat loss in a severe burn casualty in accordance with UN TCCC guidelines

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!



YOU ARE HERE

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING **#1 Priority**

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / **H**EAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

BURN CARE

FOLLOW MARCH PAWS

- Address **ALL OTHER** life-threatening injuries using the MARCH PAWS sequence
- All trauma treatments can be performed on or through burned skin

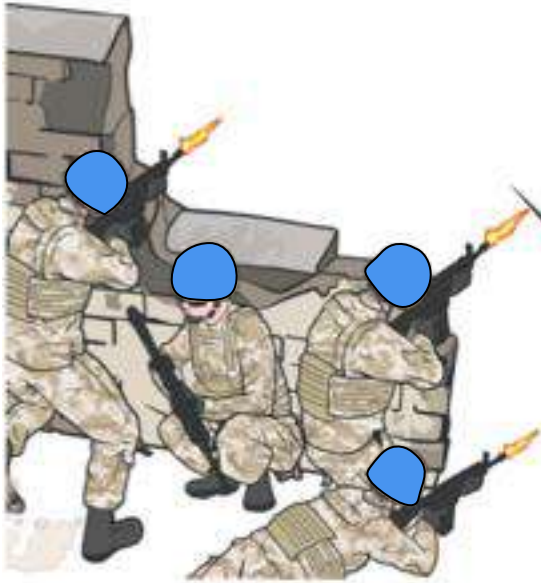
Remember

- A burned trauma casualty is a trauma casualty first



BURN CARE

POTENTIAL CAUSES



FIREFIGHTS



**EXPLOSION
(IED/VBIED)**

**VEHICLE/
AIRCRAFT
CRASHES**



ELECTRICAL



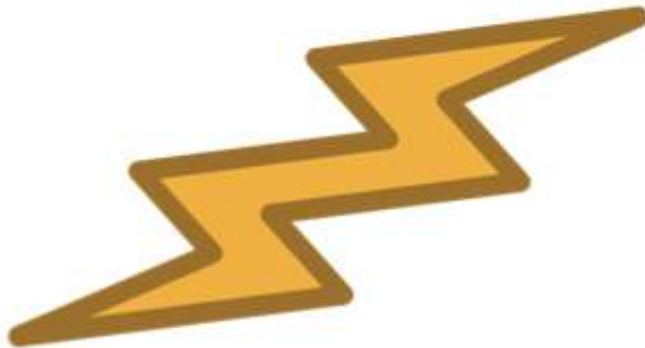
THERMAL



CHEMICAL

BURN CARE

ELECTRICAL



- Secure the power, if possible; otherwise, remove the casualty from the electrical source using a nonconductive object, such as a wooden stick
- Move the casualty to a safe place

**IN CASE OF
ELECTRICAL INJURY**

BURN CARE

THERMAL



IN CASE OF THERMAL INJURY

- Stop the source of the burn
- Cut clothing around the burned area and gently lift away

If clothing is stuck to the burn, ensure you cut around the clothing and leave it in place

- Be sure to avoid grabbing the burned area while moving/picking up the casualty

BURN CARE

CHEMICAL



IN CASE OF CHEMICAL INJURY

EXAMPLE

- White phosphorus

SOURCE

- Commonly found in tank rounds, mortar rounds, artillery rounds

TREATMENTS

- Submerge the burned area in water
- Apply wet barrier (water-soaked gauze, clothing, mud, etc.) with an occlusive dressing
- Advise medical personnel **immediately**

BURNS OVERVIEW

BURNS

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

BURN CARE

SEVERITY OF BURN

BURNS ARE CLASSIFIED BY THE DEPTH OF THE WOUND



SUPERFICIAL 1ST-DEGREE BURNS

are just like a sunburn, with a reddened appearance of the skin



PARTIAL THICKNESS 2ND-DEGREE BURNS

will also have blisters



FULL THICKNESS 3RD-DEGREE BURNS

may appear dry, stiff, and leathery, and/or can also be white, brown, or black

BURN ESTIMATION

RULE OF NINES

Rule of Nines

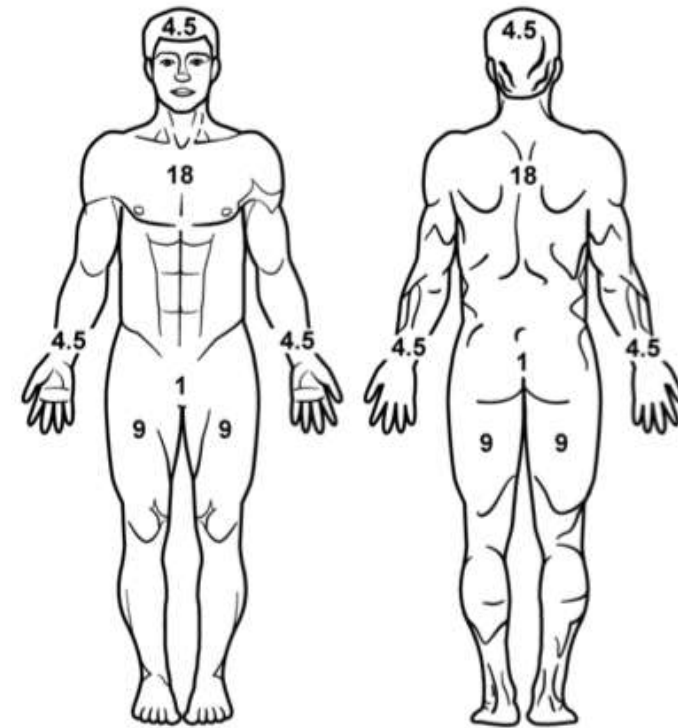
11 areas that each have **9% body surface area**
(head, arms, front and backs of legs, and front and back of the torso having **TWO 9% areas**)

- **Palm size** represents ~1%
- **Estimate/round up to nearest 10**

If half of the front or rear area **is burned**, the area would be **half** of the **area value**

ESTIMATION EXAMPLE

- **Half** of the front upper/lower leg is **4.5%**
- **Half** of the front upper/lower torso is **9%**





BURN CARE

BURN CARE



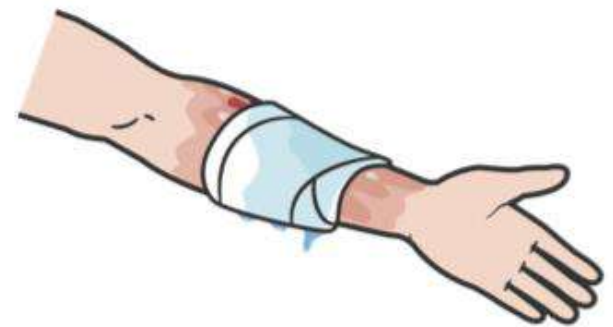
REMOVE

watches and jewelry from
burned area



COVER

the burn area with dry,
sterile dressings



COVER

burns from **white
phosphorus** with **wet**
dressings

BURN MANAGEMENT

BURN CARE + HYPOTHERMIA PREVENTION



For **extensive burns (>20%)**, consider using **active** warming supplies to cover the burned areas and prevent hypothermia

Passive Warming Supplies



- Burn patients are particularly susceptible to hypothermia
- Extra emphasis should be placed on barrier heat loss prevention methods

Facial Burns

- Facial burns, especially those that occur in closed spaces, may be associated with inhalation injury
- These casualties should be monitored closely for potential airway issues
- **DO NOT** place NPA in casualty with signs of inhalation burns

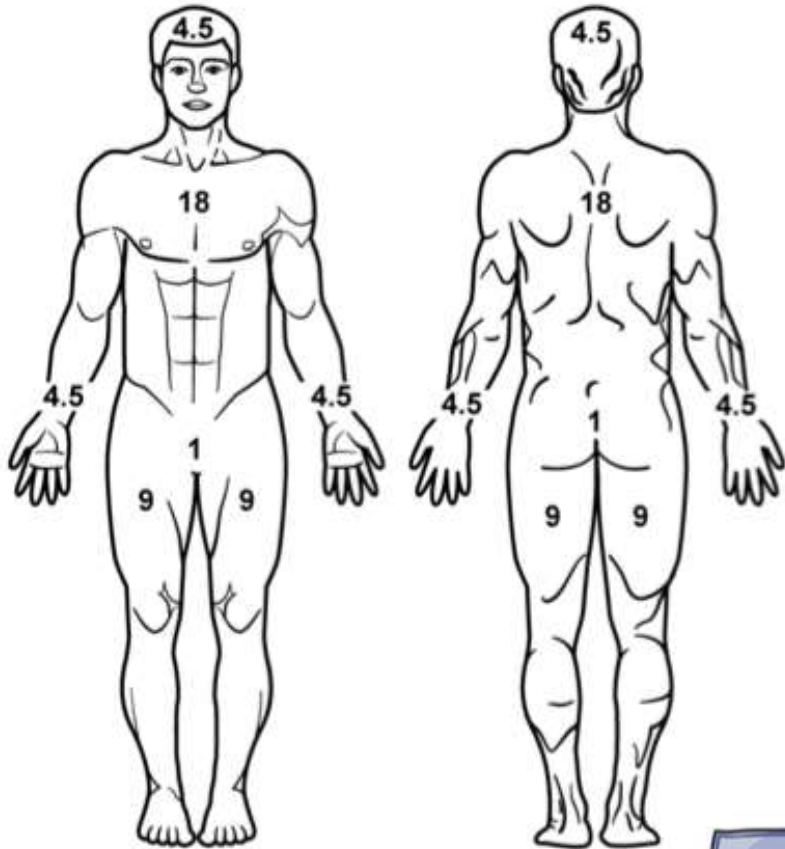
SKILL STATION

Burn Treatment (Skill)

- Burn dressing



SUMMARY



- We discussed **treatment priorities**
- We discussed **potential causes** of burns
- We identified **electrical** burns
- We identified **thermal** burns
- We identified **chemical** burns
- We discussed the **Rule of Nines**
- We discussed burns **and** hypothermia
- We discussed the **prevention of hypothermia**



ELECTRICAL



THERMAL



CHEMICAL

CHECK ON LEARNING

- What kind of dressing should be placed on burned areas?
- What should you do first when you encounter a casualty with an electrical burn?
- What should you do first when you encounter a casualty with a thermal burn?



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 17: FRACTURES

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

T19 Given a combat peacekeeping or non-combat peacekeeping scenario, perform assessment and initial management of fractures during Tactical Field Care in accordance with UN TCCC Guidelines

EO86 Identify signs of a suspected fracture

EO87 Demonstrate the basic care of fractures in accordance with TCCC Guidelines

EO88 Demonstrate proper splint application using a malleable rigid or improvised splint to a suspected fracture in Tactical Field Care

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!



YOU ARE HERE

TACTICAL FIELD CARE

MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING **#1 Priority**

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / **H**EAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

 **S**PLINTING

FRACTURES

ASSESS FOR A FRACTURE



CLOSED FRACTURE

No open wound
(break in skin) for
closed fracture



OPEN FRACTURE

Open fracture open
wound (break in
skin) major threat
for infection

WARNING SIGNS OF A FRACTURE:

- Significant pain and swelling
- An audible or perceived “snap”
- Different length or shape of limb
- Loss of pulse or sensation in the injured arm or leg
- Crepitus (hearing a crackling or popping sound under the skin)

FRACTURES

OBJECTIVES OF SPLINTING

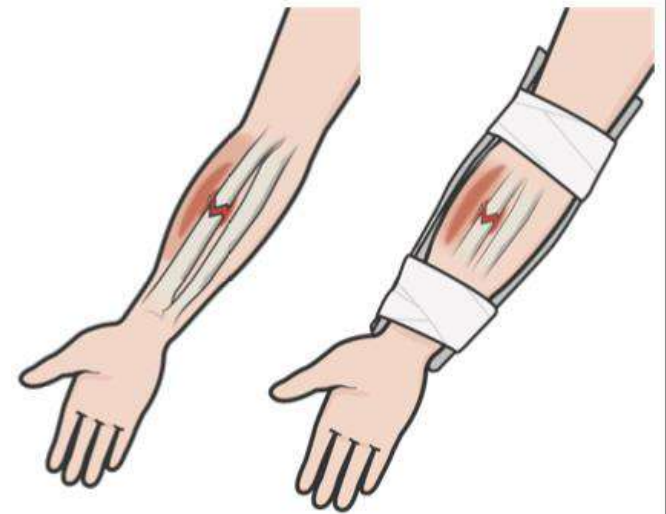
A splint is used to prevent movement and hold an injured arm/leg in place to:

1. Identify the location of the fracture
NOTE: Have the casualty or someone else manually stabilize the area
2. Check the distal pulse (pulse below the fracture) and capillary refill (color returning to the nail bed after pressing on it) on the injured extremity before applying the splint
3. Prepare the splint materials for application
NOTE: Measure and shape the splint on the opposing uninjured extremity
4. Prepare securing materials (cravats, elastic wraps/bandages, etc.)
5. Apply the splint to the injured extremity with the limb, in the position of function (a normal resting position), if possible
NOTE: If possible, lightly pad all voids within the splint to make it more comfortable
6. Secure the splint in place with appropriate materials
7. Ensure the joints above and below the fracture are immobilized in the splint whenever possible
8. Recheck the distal pulse following application of the splint. If the pulse is not palpable, loosen the splint, reposition, and reapply the splint
9. Refer to the Medic to administer the pain medications (from the Wound Medication Pack) as needed and the antibiotic for any open fracture(s)
10. Document all treatment on a Casualty Card and attach it to the casualty

FRACTURES

PRINCIPLES OF SPLINTING

- Check for other associated injuries
- Use malleable or rigid materials
- Try to pad all voids or wrap if using rigid splint
- Secure splint with elastic bandage, cravats, belts, tape
- Try to splint before moving the casualty
- Minimize manipulation of the extremity before splinting
- Incorporate one joint above and below the fracture
- Splint arm fractures to the shirt using the sleeve, if needed
- Check distal pulse and skin color before and after splinting



SPLINTING

THINGS TO AVOID WHEN SPLINTING

- Manipulating the fracture site too much resulting in pain, additional damage to blood vessels and nerves, etc.
- Securing too tightly, cutting off blood flow
- Failing to immobilize joint above and below fracture when possible
- Causing further injury
- Making casualty uncomfortable during transport/evacuation
- Splinting near or over a wound that has not be properly treated

SPLINTING

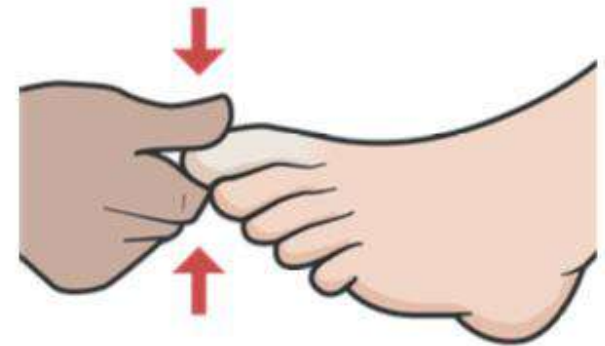
GUIDELINES FOR **LEG** SPLINTS



Identify the location of the fracture



Before applying the splint, **CHECK** distal pulse (pulse below the fracture)



CHECK capillary refill (color returning to the nail bed after pressing on it) on the injured extremity before applying the splint

Have the casualty or someone else manually stabilize the area

SPLINTING

GUIDELINES FOR **LEG** SPLINTS



PREPARE the splint materials for application



PREPARE securing materials (cravats, elastic wraps/ bandages, etc.)



APPLY the splint to the injured extremity with the limb, in the position of function, a normal resting position, if possible

Measure and shape the splint on the opposing uninjured extremity

FRACTURES

GUIDELINES FOR **LEG** SPLINTS



SECURE the splint in place with appropriate materials



ENSURE the joints above and below the fracture are immobilized in the splint whenever possible

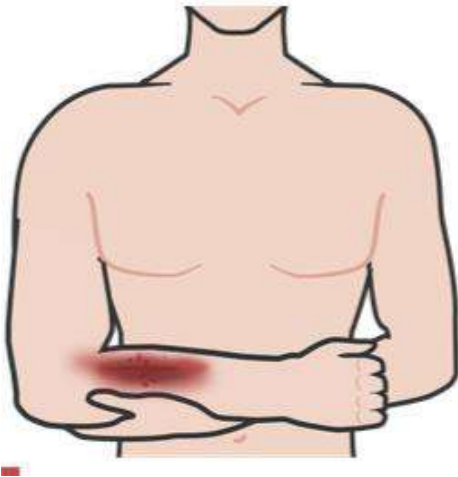


RECHECK the distal pulse following application of the splint
If the pulse is **not** palpable, loosen the splint, reposition, and reapply

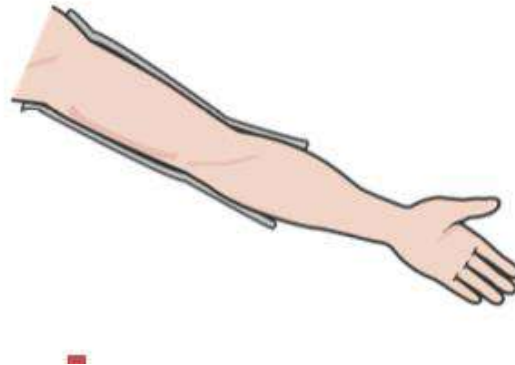
SPLINTING

GUIDELINES FOR **ARM** SPLINTS

Splinting the arm is the same concept as splinting a leg with the following exceptions:



If possible, have casualty support their injury while preparing equipment



Mold padded splint using casualty's unaffected limb

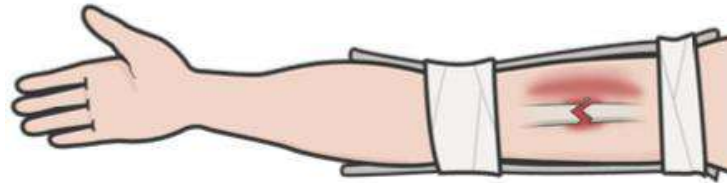


Use two triangular bandages to secure limb to body

Use third triangular bandage; place under injured arm and around neck to help support injured limb

SPLINTING

GUIDELINES FOR **ARM** SPLINTS



- Check for signs of impaired circulation
- Apply a sling to immobilize the forearm
- Apply a swathe to immobilize the upper arm
- Place two cravats above the fracture site and two below the fracture site (preferred)



SPLINTING AN ARM

SPLINTING (TACTICAL FIELD CARE)

Video can be found on DeployedMedicine.com



SKILL STATION

Splinting (Skill)

- Splinting

SUMMARY

- The most important aspect of splinting is to splint in a way that does not harm the nerves or blood vessels in the splinted extremity
- **Before** and **after** splinting, **assess** the following:



CIRCULATION

Check pulses distal to the splint (between splint and end of limb)



MOTOR

Ask the casualty to move the body parts distal to the splint, e.g., fingers or toes



SENSORY

See if the casualty can feel a gentle touch on the body parts distal to the splint



AFTER SPLINTING

Document all assessment and treatment on the Casualty Card

CHECK ON LEARNING

- True or False: When applying a splint, ensure the joints above and below the fracture are immobilized in the splint whenever possible.
- What should you assess before and after splinting?



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 18: CASUALTY MONITORING

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

T20 Given a combat peacekeeping or non-combat peacekeeping scenario, perform monitoring of a trauma casualty during Tactical Field Care in accordance with UN TCCC Guidelines

EO89 Identify the methods to assess level of consciousness, pulses, and respiratory rate on a trauma casualty in Tactical Field Care

EO90 Demonstrate assessment of radial/carotid pulse and respirations in a trauma casualty in Tactical Field Care

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!



YOU ARE HERE

CASUALTY MONITORING

ASSESSMENT USING MARCH PAWS

Re-bleeding

MARCH

MASSIVE BLEEDING

Check for re-bleeding on any previous treatments

Management

MARCH

AIRWAY

Ensure airway remains open and unobstructed

Reassess casualty every 5–10 minutes for change in status until handoff with medical personnel

CASUALTY MONITORING

ASSESSMENT USING MARCH PAWS (CONT.)

Breathing Rate

MARCH

RESPIRATION
BREATHING

Pulse

MARCH

CIRCULATION

Level of Consciousness

MARCH

HYPOTHERMIA
HEAD INJURIES

- Document any changes in status on the casualty's Cas Card.
- If medical personnel arrive in the middle of reassessment, stop and hand off casualty immediately

CASUALTY MONITORING

LEVEL OF CONSCIOUSNESS

- Check every 15 minutes (or if seriously wounded every 5–10) for decrease in AVPU:
 - A**lert
 - V**erbal
 - P**ain
 - U**nconscious
- This could indicate condition worsening
- If casualty is not **ALERT**, indicating decreased mental status, the casualty should not have weapons or communications equipment



AVPU ASSESSMENT HOW-TO

AVPU ASSESSMENT (TACTICAL FIELD CARE)

Video can be found on DeployedMedicine.com

CASUALTY MONITORING

CHECKING PULSE



CAROTID (neck)

If casualty status is noted to be deteriorating when assessed, reassess using the MARCH PAWS sequence



RADIAL (wrist)

No radial pulse is an indicator of shock

ASSESSING RADIAL & CAROTID PULSE

Video can be found on
DeployedMedicine.com

IMPORTANT CONSIDERATIONS

Measure the number of felt heartbeats in 1 MINUTE and record on Casualty Card

CASUALTY MONITORING

CHECKING RESPIRATIONS

LOOK, LISTEN and FEEL FOR RESPIRATIONS

- If a casualty becomes unconscious or their breathing rate drops below **8 respirations within 1 MINUTE**, insert a nasopharyngeal airway
- Assess for tension pneumothorax and treat as necessary
- Perform needle decompression in the presence of tension pneumothorax
- **Reassess** to confirm that needle decompression of the chest (NDC) was successful



SKILL STATION

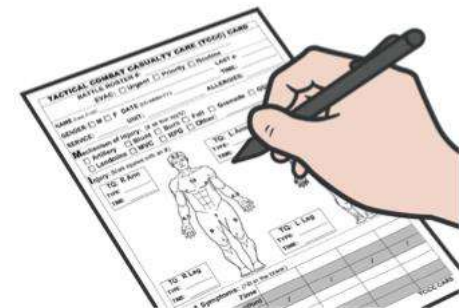
Casualty Monitoring Concepts (Skills)

- Level of consciousness
- Radial pulse
- Carotid pulse
- Tibial pulse

SUMMARY

LOOK, LISTEN and FEEL FOR RESPIRATIONS

- We discussed assessment using **MARCH PAWS**
- We discussed levels of consciousness
- We discussed checking for pulse
- We discussed checking respirations



CHECK ON LEARNING

- How is a casualty monitored after the MARCH PAWS sequence has been executed?



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 19: **PRE-EVACUATION PROCEDURES**

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

T21 Given a combat peacekeeping or non-combat peacekeeping scenario, perform pre-evacuation procedures during Tactical Field Care in accordance with UN TCCC Guidelines

- EO91** Identify the importance of and techniques for communicating casualty information with evacuation assets and/or receiving facilities
- EO92** Identify the information requirements and format of an evacuation request
- EO93** Identify the recommended evacuation prioritization for peacekeeping casualties
- EO94** Demonstrate the communication of evacuation request information and modified medical information report requirements

T22 Given a combat peacekeeping or non-combat peacekeeping scenario, perform documentation of care during Tactical Field Care in accordance with UN TCCC Guidelines

- EO95** Identify how to document casualty information on the Casualty Card and the proper placement of that card on the casualty.
- EO96** Demonstrate the proper documentation of care on a trauma casualty in Tactical Field Care

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

YOU ARE HERE



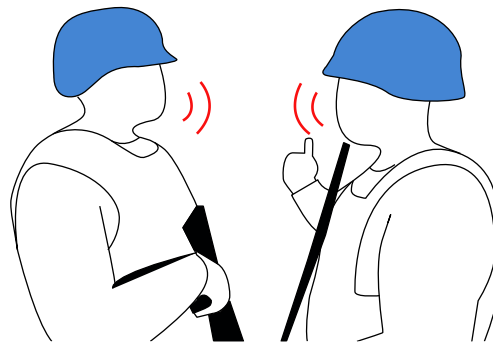
NOTE: This is covered in more advanced UN TCCC training!

PRE-EVACUATION COMMUNICATION



Communicate with the casualty if possible

- Encourage
- Reassure
- Explain care each step of the way



Communicate immediately with tactical leader for

- Status
- Evac requirements
- Casualty treatment

COMMUNICATE WITH EVACUATION AND MEDICAL ASSETS

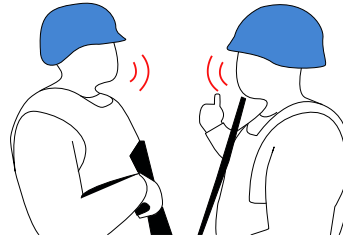
- Communicate with evacuation system to coordinate EVAC using 4-Line CASEVAC request
- Keep the Casualty Card up to date

PRE-EVACUATION

COMMUNICATE **RELEVANT** CASUALTY DATA



Document all assessment and medical care (including interventions and medications) on the Casualty Card



Communicate with evacuation system:

- 4-Line CASEVAC request
- **MIST** Report
 - Mechanism of injury
 - Injuries
 - Symptoms
 - Treatment
- Relay the information following your standard operating procedures (SOPs)

HANDOFF WITH MEDIC OR CASEVAC

- When handing off the casualty to the Medic or CASEVAC, provide the Casualty Card, including any additional information as needed
- MIST report
- May change as the casualty status and interventions performed change
- Conveys additional evacuation information that may be required by
- Helps better prepare peacekeeping commanders receiving facility

PRE-EVACUATION

REQUESTING EVACUATION OF CASUALTIES

- Although the Field Medical Assistant is not a medical person, they may need to initiate the medical evacuation request
- Depending on the tactical situation and available assets, the casualty may be evacuated by **CASEVAC**

CASEVAC

Movement of a casualty from Point of Injury to a Medical Treatment Facility



PRE-EVACUATION

MEDEVAC REQUEST KEY POINTS

9-LINE MEDEVAC / MIST REPORT

Video can be found on
DeployedMedicine.com

BE AWARE: This video demonstrates the TCCC 9-LINE MEDEVAC. The UN equivalent is the 4-LINE CASEVAC.

- **Every** UN member must be prepared to transmit a CASEVAC request
- A CASEVAC request is **NOT** a direct medical communication with medical providers, but a means of communicating evacuation requirements so aircraft resources can be launched as needed
- Gather **all** information needed **before** initiating transmission
- Use **appropriate and mandated communications security and brevity codes** when transmitting a CASEVAC request in accordance with the operational plan

PRE-EVACUATION

4-LINE: CASEVAC REQUEST LINES 1-4

(4 Line Format)

Line	UN CASEVAC 4-LINE ALERT MESSAGE		
	DTG:		
1	LOCATION AND CALL SIGN	PLACE NAME / DESCRIPTION	A
		GPS GRID REFERENCE	B
		CALL SIGN OF INCIDENT SITE COMMANDER	C
2	INCIDENT DETAILS	WHAT HAS HAPPENED? (Shooting, road accident, explosion etc).	D
		HOW MANY CASUALTIES ARE THERE?	E
3	ACTIONS BEING TAKEN AT SCENE	TREATMENT BEING GIVEN AND PREPERATIONS FOR EVACUATION	
4	RESOURCES REQUIRED AT SCENE TO TREAT AND EVACUATE PATIENT	GROUND AMBULANCE, AIR EVACUATION, AMET	

SKILL STATION

Communication and Documentation (Skills)

- 4-Line & Mist Report

PRE-EVACUATION

CASUALTY CATEGORIES

Ground medical personnel will determine EVAC categories of casualties
EXAMPLES:

URGENT	URGENT SURGICAL	PRIORITY	ROUTINE	CONVENIENCE
<2 hours to save life, limb, or eyesight	<2 hours to nearest surgical unit	<4 hours or could deteriorate to urgent	<24 hours	Not a medical necessity
Tourniquets Corrected haemorrhage Traumatic Brain Injuries (TBIs)	Needle Decompression of the Chest (NDCs) Cricothyroidotomy Major internal bleeding Massive head trauma	Compensated shock Broken arm with loss of distal pulse 2nd-degree burns to a large portion of the abdomen or extremities	Abrasions Cardiac arrest Small fractures Frostbite 2nd-/3rd-degree burns >70% of body surface area (BSA)	Used for administrative purposes for casualty movement

PRE-EVACUATION

OVER-CATEGORIZATION

OVER-CATEGORIZATION: the tendency to classify a wound or injury as being more severe than it actually is

Historically **AND** currently problematic

Proper casualty categorization is needed to ensure that those casualties in greatest need are evacuated first and receive the care required to help ensure their **survival**

Casualties will be picked up **as soon as possible**, consistent with available resources and pending missions

- A. Urgent: <2 hours to save life, limb, or eyesight
- B. Urgent Surgical: <2 hours to nearest surgical unit
- C. Priority: <4 hours or could deteriorate to urgent
- D. Routine: <24 hours
- E. Convenience: not a medical necessity



PRE-EVACUATION

COMMUNICATE

1. **WITH THE CASUALTY**
Encourage, reassure,
and explain care
2. **WITH TACTICAL
LEADERSHIP**
Provide leadership with
the casualty's status and
location
3. **WITH MEDICAL
PERSONNEL**
Discuss with the
responding medics the
casualty's injuries and
symptoms, as well as
any medical aid provided

DOCUMENT

1. CASUALTY ASSESSMENT FINDINGS
2. MEDICAL AID RENDERED
3. CHANGES IN CASUALTY STATUS

MIST Report is generated from
Cas Card

SKILL STATION

Communication and Documentation (Skill) – Cas Card

SUMMARY

- We discussed the **4-Line** and **MIST** Reports
- We discussed **requesting** an **evacuation** of a casualty
- We identified **over-categorization**
- We identified **key information** to relay to tactical leadership



CHECK ON LEARNING

- With whom do you communicate in a casualty situation?
- What information does the MIST Report contain?
- Who should complete the Casualty Card?
- Where can you find the Casualty Card?



ANY QUESTIONS?



FIELD MEDICAL ASSISTANTS COURSE (FMAC)

MODULE 20: EVACUATION PROCEDURES

UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

ROLE-BASED TRAINING SPECTRUM

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant



You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

STUDENT LEARNING OBJECTIVES

TERMINAL LEARNING OBJECTIVE

T23 Given a combat peacekeeping or non-combat peacekeeping scenario, prepare casualties for evacuation during Tactical Field Care in accordance with UN TCCC Guidelines

EO97 Identify considerations and fundamental procedures for staging casualties for evacuation

EO98 Identify the importance of pre-mission evacuation equipment preparation and rehearsals

EO99 Identify considerations and precautions required for evacuating casualties with suspected spinal injuries

EO100 Identify critical actions and checks to prepare casualties for evacuation

EO101 Identify methods of litter selection and evacuation equipment in Tactical Field Care

EO102 Identify considerations for evacuating ambulatory/walking wounded casualties in Tactical Field Care

EO103 Demonstrate the preparation of a casualty for evacuating in Tactical Field Care

EO104 Identify the importance and information considerations of a casualty After Action Review (AAR) submission

Three PHASES of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE
AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND
CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

YOU ARE HERE



NOTE: This is covered in more advanced UN TCCC training!

EVACUATION PROCEDURES

IMPORTANT ACTIONS

(IN THIS MODULE)

SECURE ITEMS



PREP EVAC EQUIPMENT



CHOOSE AND PREP LITTER



PACKAGE CASUALTY FOR EVACUATION

EVACUATION PROCEDURES

SECURE CASUALTY'S EQUIPMENT



Secure the casualty's weapon and equipment in accordance with unit SOP or mission requirements



Clear and render safe any weapons evacuated with the casualty



Do not evacuate explosives with the casualty if possible

Keep in mind that receiving medical personnel may not be familiar with the equipment or have a way to secure it

EVACUATION PROCEDURES

EVAC EQUIPMENT



Prepped by unit personnel
while treatment continues

Coordinate other
EVAC activities



Do not delay getting casualties
onto litters

Hypothermia is better prevented
off the ground

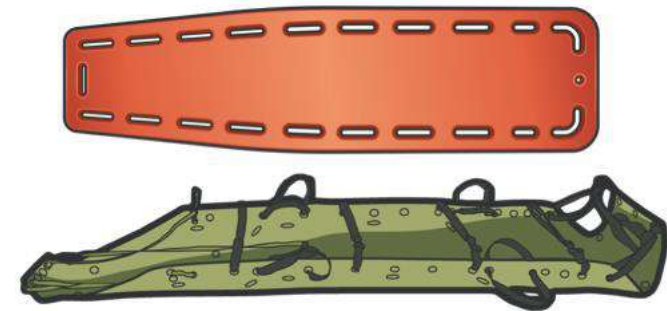
Easier to move casualty on litter



Keep necessary medical
equipment with the casualty
(Ex: BVM)

EVACUATION PROCEDURES

LITTERS



- Casualty movement is easier using litters
 - Use best position for care and comfort
 - You **DO NOT** have to place casualty on back
 - For casualties with spinal injuries, keep spinal column as straight as possible
 - **CASUALTY MUST BE SECURED before movement**
- Select litter based on mission or unit
 - Consider and train according to operating environment:
 - Equipment
 - Movement
 - Rehearse litter open/setup/carry

EVACUATION PROCEDURES

LITTER SELECTION



Compact/lightweight transport system

- ✓ Lightweight
- ✗ Rough terrain (if dragging)
- ✓ Two-peacekeeper carry
- ✓ Draggable by one peacekeeper



Compact quad-folding litter

- ✓ Small
- ✗ Requires more than one peacekeeper
- ✓ Carrying case
- ✗ May not fit in evacuation vehicle
- ✓ Carried like a rucksack

EVACUATION PROCEDURES

PACKAGE THE CASUALTY



- Secure loose ends of bandages, medical equipment, and hypothermia prevention materials
- During evacuation, loose materials may get caught and cause further injury to casualties or delays
- Prevent items from being blown by rotor wash or becoming entangled with other equipment
- Blankets and hypothermia materials are especially susceptible to becoming entangled
- Secure the casualty to a litter
- Properly secure completed UN Casualty Card

EVACUATION PROCEDURES

EVACUATION CONSIDERATIONS FOR SUSPECTED SPINAL INJURIES



- Events to consider for neck or back injuries: falls, motor vehicle accidents, IEDs, fast-rope injuries, etc.
- Ensure cervical (neck) spine (C-spine) immobilization when spinal cord injury is suspected, if possible
Note: Spine board is requested during 4-Line CASEVAC request
- When considering selection of litter (such as standard litters) based on mission and unit, realize that the selected litter may not fit in the given evacuation ground/air vehicle

EVACUATION PROCEDURES

WALKING WOUNDED



- Provide instructions/ assistance as needed
- If possible, casualty may assist as a litter bearer/provides security



- Guide disoriented / visually impaired casualty's hand-to-shoulder to evacuation platform

SELF-CARE

- Instruct casualty to repeatedly check their own wounds and dressings to ensure bleeding remains controlled

EVACUATION PROCEDURES

STAGE CASUALTY



- Be prepared for the arrival of the evacuation platform
- Stage the casualties in the loading sequence of the evacuation platform
- Tagging or color-coded chemlights may be used to identify casualty evacuation categories
- Maintain security at the evacuation point in accordance with SOP

EVACUATION PROCEDURES

MEDICAL AFTER ACTION REVIEW (AAR)

The AAR covers the following

- What went right?
- What went wrong?
- What can we do better?
- Lessons learned on the casualties and injuries
- Treatment of casualties and effectiveness during mission

Capturing a good AAR ensures up-to-date medical information, types of casualties, and injury patterns that units might encounter and can train for

SKILL STATION

Evacuation Procedures – Concepts (Skills)

- Staging for evacuation
- Preparing pre-mission evacuation equipment and rehearsing
- Evacuating casualties with suspected spinal cord injuries
- Preparing casualties for evacuation
- Selecting litter and evacuation equipment in TFC
- Evacuating ambulatory casualties in TFC
- Submitting the AAR
- Submitting/handing off the 4-Line CASEVAC report

SUMMARY



- We identified important actions
- We discussed securing casualty equipment
- We discussed evacuation equipment
- We identified litter selections
- We discussed casualty packaging
- We identified spinal injury considerations
- We discussed walking wounded
- We identified staging
- We identified considerations for casualty AAR

CHECK ON LEARNING

- What actions are needed to prepare for evacuation?
- What does casualty staging involve?



ANY QUESTIONS?



TACTICAL TRAUMA ASSESSMENT STUDENT PRACTICE



UN FIELD MEDICAL ASSISTANTS

Instructor Handbook

Second Edition 2023

Reviewed 07/2023



Prologue

Based on scientific Joint Trauma System ® and Tactical Combat Casualty Care ® (TCCC) principles, adapted to United Nations' needs this course aims to enhance the medical emergency support in the field.

Since the number of professional medical personnel among the peacekeepers in UN-missions is limited, additional measures have to be taken to urgently treat casualties within the first minutes after an incident. These first minutes are considered as "platinum 10 minutes" because they are essential for the survivability of wounded patients.

So, this becomes a task for the peacekeepers.

As a first step every peacekeeper has to attend a mandatory pre-deployment Buddy First Aid Course. But there remains still a gap between First Aid and professional medical emergency treatment.

To fill this gap a United Nations Tactical Combat Casualty Care (UN TCCC) Course has been developed. Selected peacekeepers will be trained on enhanced measures to rescue wounded, ill or injured casualties even under the life-threatening conditions in robust missions in the fields.

Therefore, this course not only contains medical/technical approaches but also takes into consideration the "tactical" needs in certain field-situations which peacekeepers might face.

This instructors' manual aims to help the trainers to receive a common understanding of UN principles in the rescue chain in order to provide a proper training to the students. The Principles are based on the open Joint Trauma System, TCCC, and Deployed Medicine sources which are developed by U.S. military and are Evidence Based.

As this is a living document it shall be adjusted to the latest scientific results for emergency medicine measures.

We hope that based on the information given in this document a successful training based on common UN emergency medicine principles will be conducted to enhance the survival rate of ill, injured or wounded UN personnel.

New York, 25. Nov, 2021

Dr. Carolina Herrera – Section Chief MWFM

Col Dr. Arne Mueller – Military Medical Advisor

Cpt Pedro Montoliu Garcia – Medical Planner Nurse Educator

N.N.

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MODULE 1

Principles and Application of United Nations Tactical Combat Casualty Care (UN TCCC)

These comprehensive speaker notes provide a script for the trainer to use in delivering this UN TCCC-FMA didactic presentation. The notes include key points that should be emphasized throughout the presentation.

SLIDE 1 – TITLE SLIDE

Good morning. Welcome to the United Nations Tactical Combat Casualty Care (UN TCCC) Field Medical Assistants (FMA) Course.

My name is **(insert name)**, and I am the lead trainer for this course. I am joined by other trainers who will assist with the hands-on portion of the training. **(Introduce other trainers as appropriate.)**

Explain JTS, TCCC, CLS and UN Equivalent Terminology and Qualifications.



SLIDE 1b – ADJUSTMENTS

Adjustments are as follows:

- The UN equivalent to **Tactical Combat Casualty Care (TCCC)** = **United Nations Tactical Combat Casualty Care (UN TCCC)**
- The UN equivalent to **TCCC Combat Lifesaver** = **Field Medical Assistants (FMA)**
- The UN equivalent to the **TCCC 9-Liner Medical Evacuation** = **UN Evacuation 4 Liner**
- The UN equivalent to **TCCC DD Form 1380** = **UN Casualty Card**
- The UN equivalent to **TCCC CASEVAC/MEDEVAC/TACEVAC** = **UN CASEVAC**
- The UN equivalent to **TCCC Joint First Aid Kit (JFAK)** = **Buddy First Aid Kit (BFAK)**
- The UN equivalent to **TCCC Combat Lifesaver Bag (CLS Bag)** = **UN Trauma Pack (UNTP)**
- The UN equivalent to **TCCC Combat / Combatant** = **Peacekeeping / Peacekeeper**
- The UN equivalent to **TCCC Combat Wound Medication Pack (CWMP)** = **Wound Medication Pack (WMP)**



SLIDE 2 – UN TCCC ROLES

UN Tactical Combat Casualty Care is broken up into two roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



SLIDE 3 – TLOs/ELOs

Students need to understand the basis for the course, and the expected learning outcomes.

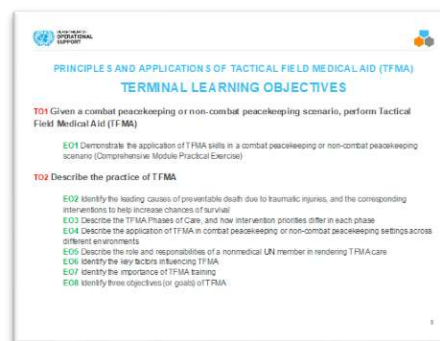
The UN TCCC-FMA course is built on a foundation of learning objectives. These objectives lay out the basic structure of the course and describe the knowledge and skills you are expected to acquire by the end of the course.

This module has two Terminal Learning Objectives, or TLOs. Each TLO is supported by a series of Enabling Learning Objectives, or ELOs.

This module has one performance objective: to demonstrate the application of UN TCCC skills in a combat peacekeeping or non-combat peacekeeping scenario.

This module has seven cognitive learning objectives. They are to:

1. Identify the leading causes of preventable death due to traumatic injuries and the corresponding interventions to help increase chances of survival

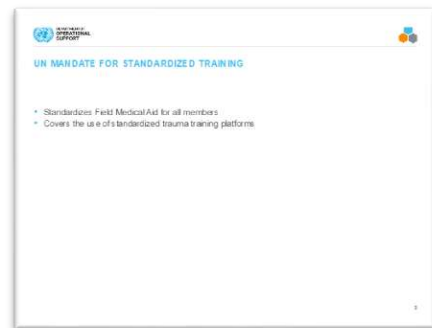


2. Describe the UN TCCC Phases of Care and how intervention priorities differ in each phase
3. Describe the application of UN TCCC in combat peacekeeping and non-combat peacekeeping settings across different environments
4. Describe the role and responsibilities of a nonmedical UN member in rendering UN TCCC care
5. Identify the key factors influencing UN TCCC
6. Identify the importance of UN TCCC training
7. Identify the three objectives (or goals) of UN TCCC.

SLIDE 4 – CONGRESSIONALLY MANDATED STANDARD

Standardized Field Medical Aid training for all members is mandated by the UN.

UN TCCC is the standard of care in prehospital battlefield medicine.



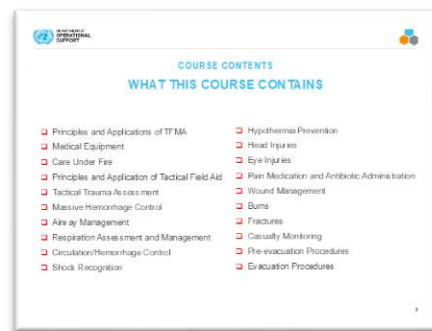
SLIDE 5 – ONLINE RESOURCES

The Deployed Medicine site (DeployedMedicine.com) and phone app from the Defense Health Agency (DHA) leverage technology to provide access to on-demand multimedia content. This content supports continuous lifelong learning and access to real-time updates in TCCC training and education.



SLIDE 6 – COURSE CONTENT

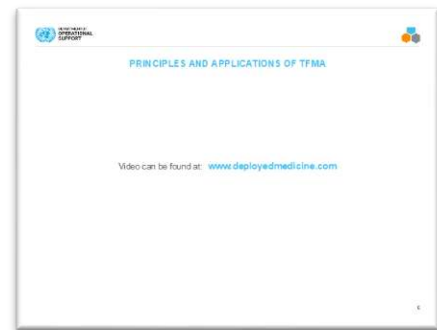
This course will reinforce the principles of UN TCCC and teach the knowledge and skills needed to save lives and improve outcomes for combat casualties.



SLIDE 7 – WELCOME TO TCCC (VIDEO)

Trainer: Play video. The course starts by playing a motivational video or scene setter to launch the course.

TCCC Training Overview Video. This video describes the genesis and evolution of TCCC and the critical role it plays in saving lives on the battlefield and improving outcomes for the combat wounded.



SLIDE 8 – ROLES AND RESPONSIBILITIES OF FMA

Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems.



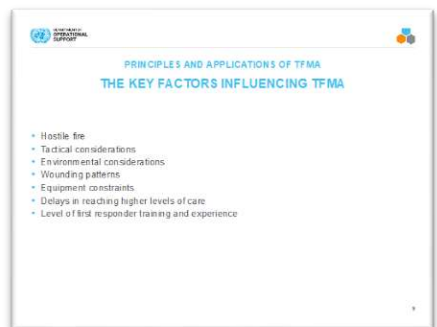
SLIDE 9 – ROLES AND RESPONSIBILITIES OF FMA (CONT.)

Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



SLIDE 10 – THE KEY FACTORS INFLUENCING UN TCCC

Several key factors influence how prehospital care is provided in the combat versus the civilian setting. Factors influencing UN TCCC are: hostile fire, tactical and environmental considerations, wound patterns, equipment constraints, delays reaching higher levels of care, and level of first responder training and experience. These factors will



be discussed more within this module and throughout the training.

SLIDE 11 – IMPORTANCE OF UN TCCC TRAINING

Approximately **90 percent** of combat casualty deaths occur before the casualty reaches a higher level of care (surgeon, etc.). Prehospital care, including the care provided by FMA, is critical to the survival of those wounded in combat. Multiple research studies and casualty data from Iraq and Afghanistan highlight the causes of preventable death on the battlefield.

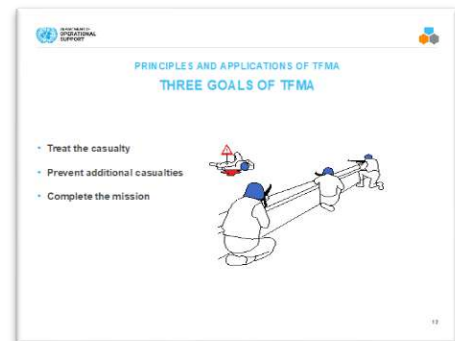
UN TCCC training focuses on identifying and treating these most common causes of preventable death on the battlefield: hemorrhage/bleeding, injuries resulting in tension pneumothorax, and airway issues.



SLIDE 12 – THREE GOALS OF UN TCCC

The three goals of UN TCCC are to:

1. Treat the casualty
2. Prevent additional casualties
3. Complete the mission



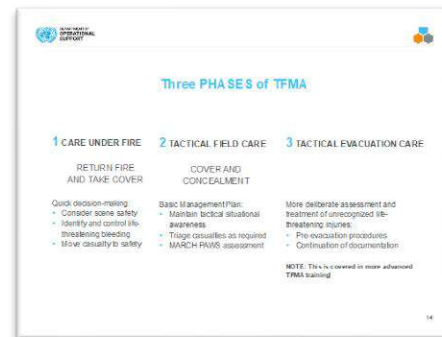
SLIDE 13 – ENTER PEACEKEEPING OPERATIONS



SLIDE 14 – THREE PHASES OF UN TCCC

UN TCCC is organized into Phases of Care that start at the point of injury. These phases are relevant to combat peacekeeping and non-combat peacekeeping combat trauma scenarios:

1. **Care Under Fire, or Care Under Threat**, is the aid rendered at the trauma scene while the threat is still active. Available medical equipment is limited to that carried by an individual or found in a nearby first aid kit. Massive bleeding is the only medical priority that requires your attention during this phase, as you are actively dealing with an ongoing threat in a potentially chaotic and dangerous situation.
2. **Tactical Field Care (TFC)** is the care provided once the threat has been neutralized and/or the scene is safe or the casualty has moved/been moved out of the immediate threat situation. During this phase, a rapid casualty assessment should be performed. Bleeding control should be assessed/reassessed, and airway/breathing issues addressed. Other injuries such as burns, fractures, eye trauma, and head injuries should now be identified and treated. Medical equipment is still limited. Time to arrival of medical personnel or evacuation may vary considerably, depending on the tactical situation, etc.
3. **Tactical Evacuation Care** is the care rendered during and once the casualty has been moved by an aircraft, vehicle, or other mode of transportation for evacuation to a higher level of care. Additional medical personnel and equipment are typically available in this phase of casualty care.



Remember: The goal of the FMA in UN TCCC is to rapidly assess casualties to identify and treat potentially life-threatening injuries to keep them alive long enough to reach a higher level of medical care.

SLIDE 15 – PHASE 1: CARE UNDER FIRE

Care Under Fire is the care rendered by the first responder/FMA at the scene of the injury while still under effective hostile fire. Available medical equipment is limited to that carried by the individual responder or casualty (Buddy First Aid Kit (BFAK) or a UN Trauma Pack (UNTP)). Remember: Always use the **casualty's BFAK first**.

The critical feature of CUF is that the casualty and responder/FMA are still under effective hostile fire.

The mission does not stop just because there is a casualty. Most battlefield casualty scenarios involve making medical and tactical decisions rapidly. In the combat environment, there is no “time-out” when casualties occur. Good medicine can sometimes be bad tactics;



doing the RIGHT thing at the WRONG time can get you and your teammates killed or cause the mission to fail.

Order of initial actions will be dictated by the tactical situation. Little time is available to provide casualty care while under effective enemy fire. Suppressing hostile fire and gaining fire superiority should be the priority to minimize the risk of injury to other personnel and minimize additional injury to the casualty while completing the mission. Personnel may need to assist in returning fire instead of stopping to care for casualties (this includes the casualty if still able to fight). Wounded UN members who are exposed to enemy fire should be directed to continue to return fire, move as quickly as possible to any nearby cover, and perform self-aid, if able.

Remember: Do not become a casualty! Assess the situation and the risk. Suppress enemy fire and gain fire superiority first. Communicate with the casualty (return fire, move to cover, self-aid), and develop a plan before moving to care for a casualty under fire.

SLIDE 16 – PHASE 1: CARE UNDER FIRE CONT. (EARLY CONTROL OF SEVERE HEMORRHAGE IN CARE UNDER FIRE IS CRITICAL)

In CUF, your **#1 priority** is to recognize and stop massive bleeding and get yourself and the casualty to cover and out of hostile fire. Massive bleeding can be identified by a pulsing or steady bleeding from a wound or traumatic amputation of an extremity.



Apply a tourniquet without delay if indicated. Injury to a major vein or artery can result in shock or death from blood loss in minutes. Extremity (arm or leg) hemorrhage is a leading cause of preventable combat death. Using tourniquet(s) to stop the bleeding is essential to the survival of casualties with these types of injuries.

Permanent skin, muscle, and blood vessel damage to the limb is rare (tourniquets are often left in place for several hours during routine surgical procedures). Applying a tourniquet promptly to stop life-threatening bleeding saves lives and may allow the injured UN members to continue to fight while awaiting further care and evacuation. It is imperative that all UN members with access to BFAK, etc. be trained in tourniquet use.

Remember: Both you and the casualty remain in grave danger under threat of enemy fire while applying a tourniquet in the CUF phase. Quickly place the tourniquet high and tight on the affected limb. Treatment of non-life-threatening bleeding should be deferred until the Tactical Field Care phase.

SLIDE 17 – PHASE 2: TACTICAL FIELD CARE MARCH PAWS

Tactical Field Care is the care rendered by a first responder/FMA once the responder and casualty are no longer under direct threat from effective enemy fire. This allows for the time and the relative safety for a more deliberate approach to casualty assessment and treatment.

Casualty assessment and management in TFC follow an approach known as **MARCH PAWS**.

Massive bleeding
Airway
Respiration/breathing
Circulation
Hypothermia/**H**ead Injuries
Pain
Antibiotics
Wounds
Splinting

This is a helpful mnemonic for remembering how to systematically approach casualty assessment and management to ensure that life-threatening injuries are identified and treated promptly, saving lives on the battlefield and reducing preventable combat death.



SLIDE 18 – OTHER CONSIDERATIONS OF TACTICAL FIELD CARE

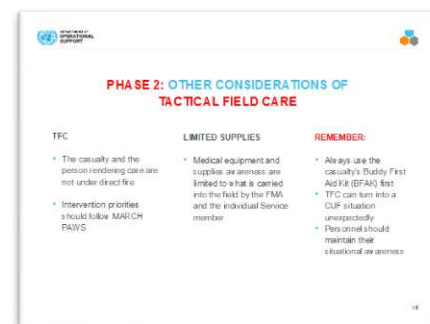
The critical feature of Tactical Field Care is that the casualty and responder/FMA are no longer under effective hostile fire.

However, the FMA must maintain security and situational awareness at all times while continuing to treat casualties and preparing for handoff to medical personnel/evacuation assets.

The tactical situation is often fluid and can change rapidly and revert to a CUF scenario at any time.

Your available medical equipment is still limited to that carried into the field by the casualty (BFAK), the FMA, and other first responders (BFAKs, UNTP or the Medic in their aid bag. Remember to use the supplies within the casualty's BFAK first before using your own supplies.

The TFC phase allows more time, and relatively more safety, for you to provide further medical care. You may need to continue treatment until medical personnel arrive and then assist medical personnel with continued treatment and preparation for evacuation. Anticipated time to



evacuation to the next higher level of care may vary depending on the tactical situation. The FMA must be prepared to reengage the enemy and continue the mission.

Medical personnel will be focused on casualty treatment, so you and unit leaders must coordinate, and request evacuation assets based on the operational situation.

SLIDE 19 – PHASE 3: TACTICAL EVACUATION CARE (TEC)

Tactical Evacuation Care is the care rendered once the casualty has been **picked up** by an aircraft, ground vehicle, or other evacuation platform. It continues the care for the casualty started in the earlier phases of care.

Tactical Evacuation Care is similar to TFC in many ways. However, the extra medical personnel and equipment on the evacuation asset may enable provision of additional care in this phase of casualty management.

The term “CASEVAC” means evacuation from Point of Injury to a Medical Treatment Facility (MTF). The term “MEDEVAC” means transport between MTF’s. Nonmedical first responders or FMAs are not expected to care for casualties during evacuation. However, if it does happen, the approach (MARCH PAWS) and skills learned for CUF and TFC apply.

The key principle in Tactical Evacuation Care is that monitoring with appropriate assessment and treatment **MUST** be continued until the casualty is handed off to medical personnel or arrives at a higher level of care.

Pre-evacuation procedures include ensuring that all assessment and care rendered in CUF and TFC have been documented by the first responder or FMA on the Casualty Card.

An evacuation request using the 4-line format is communicated per unit Standard Operating Procedures to initiate CASEVAC. The 4-line CASEVAC request includes a **MIST** (Mechanism of injury, Injuries, Symptoms, and Treatment) report.

Before evacuation, **the casualty must be packaged for evacuation**, items (weapons, equipment, etc.) secured, litter and evacuation equipment prepared, etc.

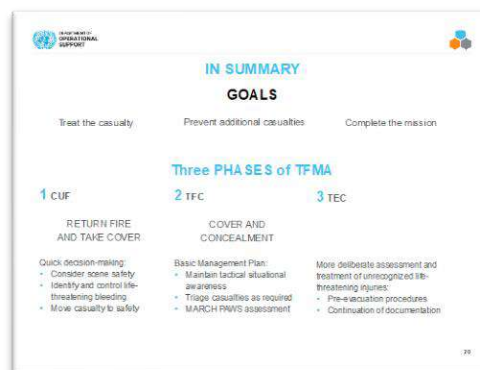
SLIDE 20 – IN SUMMARY

The GOALS of UN TCCC are to:

1. Treat the casualty (provide lifesaving care to the injured combatant)
2. Prevent additional casualties
3. Complete the mission

The three phases of UN TCCC are:

1. Care Under Fire



- Take cover, return fire, and gain fire superiority
- Address life-threatening hemorrhage with tourniquets/move to cover
- 2. Tactical Field Care
 - Cover and conceal
 - MARCH PAWS
 - Prepare for evacuation Casualty Card, 4-line CASEVAC Request, MIST)
- 3. Tactical Evacuation Care (TEC)
 - Continue monitoring and care (additional medical personnel/equipment) until handoff at a higher level of care

Remember that bleeding is the number one cause of preventable prehospital combat death:

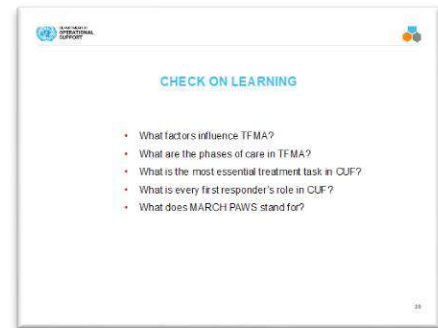
- Remain tactically vigilant and maintain security at all times, or you could become a casualty.
- Document all assessment and care on the Casualty Card.

SLIDE 21 – CHECK ON LEARNING

Ask questions of the learners referring to key concepts from the module.

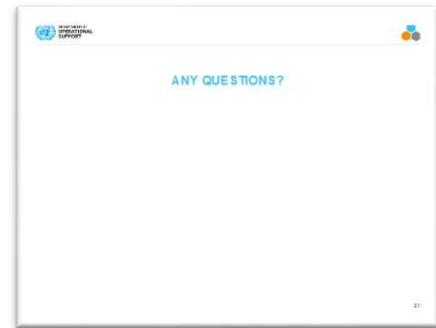
Now for a check on learning.

- 1) What are factors that influence UN TCCC?
 - Hostile fire
 - Wounding patterns
 - Equipment constraints
 - Delays in reaching higher levels of care
 - Level of first responder training and experience
- 2) What are the phases of care in UN TCCC?
 - Care under Fire (CUF)
 - Tactical Field Care (TFC)
 - Tactical Evacuation Care (TEC)
- 3) What is the most essential treatment task in Care Under Fire?
 - Tourniquet (TQ) application to stop massive bleeding
- 4) What is every first responder's role in Care Under Fire?
 - To treat the most immediate life-threatening injuries with TQ application on the battlefield
- 5) What does MARCH PAWS stand for?
 - M – Massive Bleeding (Hemorrhage)
 - A – Airway
 - R – Respiration
 - C – Circulation
 - H – Hypothermia/Head Injuries



- P – Pain
- A – Antibiotics
- W – Wounds
- S – Splints

SLIDE 22 – QUESTIONS



MODULE 02

MEDICAL EQUIPMENT

NOTE TO TRAINERS: Pass out appropriate kits so the students can have them in hand during the discussion.

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

UN Tactical Combat Casualty Care is broken up into two roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.

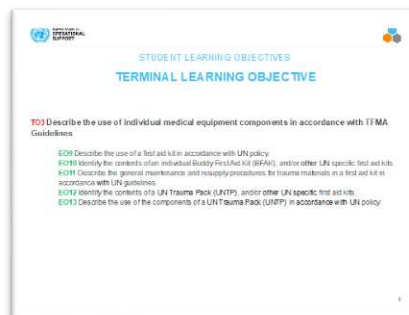


SLIDE 3 – TLO/ELO

The Medical Equipment module has **five cognitive learning objectives**. The cognitive learning objectives are to:

1. Describe the use of the first aid kit in accordance with UN policy
2. Identify the contents of the Buddy First Aid Kit and/or other UN specific first aid kits
3. Describe the general maintenance and resupply procedures for trauma materials in the first aid kits
4. Identify the contents of a UN Trauma Pack (UNTP) and/or other UN-specific first aid kits
5. Describe the use of the components of a UN Trauma Pack (UNTP) in accordance with UN Policy

The critical aspects are to be familiar with the contents, use, and maintenance/resupply of the BFAK, UNTP, and/or other UN specific first aid kits used by a FMA to provide aid and save a life.



SLIDE 4 – MEDICAL SUPPLIES YOU WILL NEED TO PROVIDE AID AND SAVE A LIFE

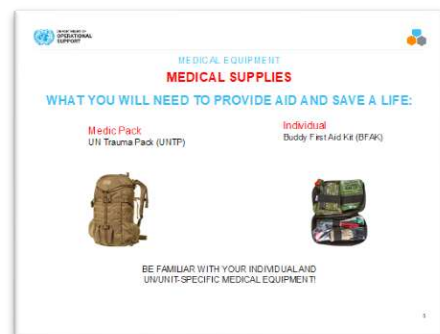
Peacekeepers in the UN carry a large array of equipment, and survival depends heavily on the ability to properly use that equipment.

One piece of critically important equipment is the Buddy First Aid Kit (BFAK).

Every piece of equipment chosen for the BFAK is evidence-based (lessons learned from the recent overseas contingency operations in Afghanistan and Iraq) and serves a distinct purpose for the individual UN member; knowing how to properly use what is in the BFAK can save a life. Remember, when treating a casualty, use the items that are in the casualty's BFAK first. The UN member's BFAK should be reserved for self-aid whenever possible.

Every item in your BFAK supports provision of UN TCCC per the current guidelines. This lesson provides an opportunity to get a hands-on introduction to the kit and its contents. The equipment discussed supports the provision of UN TCCC per the current guidelines and enables the first responder/FMA to address issues identified in CUF, TFC, and TEC (MARCH PAWS).

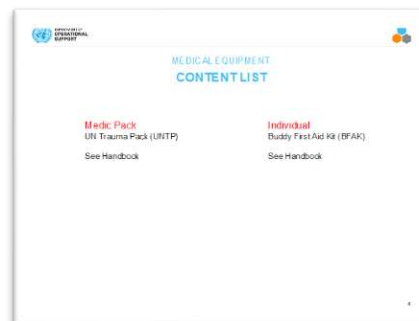
Trainer Note: While items are being explained, students should be given the opportunity to open wrappers and prepare their equipment for upcoming lessons.



SLIDE 5 – CONTENT LIST

Medic Pack: UN Trauma Pack (UNTP) - See Handbook

Individual: Buddy First Aid Kit (BFAK) - See Handbook



SLIDE 6 – CONTENT OVERVIEW (M-MASSIVE HEMORRHAGE AND C-CIRCULATION)

Tourniquet – The UN-recommended tourniquet is used to control massive or severe hemorrhage (bleeding) of an extremity (arms and legs). This is the most important lifesaving item in the BFAK and should be kept easily accessible and ready for use.

Hemostatic Dressing – The UN-recommended type of dressing, called a hemostatic (helps with blood-clotting) dressing, contains a chemical that bonds to another chemical in blood and causes clots to form at the source of bleeding. Use of a hemostatic dressing is called for when severe bleeding is observed from a wound that is in a junctional or other area where a tourniquet cannot be used (groin, neck, underarm wounds) or when a wound is not severe enough to warrant a tourniquet.

Remember, hemostatic dressings cannot be used inside the abdomen or chest (use an emergency bandage or other trauma dressing for these areas).

Emergency Bandage/Trauma Dressing – This elastic bandage can be used as a standard dressing for most wounds and can be used for wounds not bleeding enough for a tourniquet. This dressing can also be used alone or along with other forms of hemorrhage control (hemostatic dressing, etc.) to enhance effectiveness in controlling bleeding by providing pressure to the wound.



SLIDE 7 – CONTENT OVERVIEW (A-AIRWAY AND R-RESPIRATION)

Nasopharyngeal Airway (NPA) with Lubricant –

This is a nonsterile, rubber tube-shaped device that is inserted into the casualty's nostril. It acts as a wedge to keep the airway open by keeping the tongue from falling back into the space behind the mouth leading to the windpipe. Only a 32 French NPA is found within standard-issue



BFAKs, sizing the NPA before insertion is not necessary. The lubricant is a water-based substance that assists in device insertion into the nose.

Chest Seal – This vented (preferred) self-adhering chest seal is used for treating sucking chest wound/open pneumothorax.

Catheter-over-needle Device – This 10- to 14-gauge 3” catheter-over-needle device is used to treat tension pneumothorax.

SLIDE 8 – CONTENT OVERVIEW – (P-PAIN AND A-ANTIBIOTICS)

Wound Medication Pack (WMP) – The WMP is an example of a pre-packaged medication packet with drugs and dosages specifically chosen for use in combat casualty care. The WMP contains drugs for mild to moderate pain (meloxicam and acetaminophen) and an antibiotic specific for penetrating wounds (moxifloxacin).

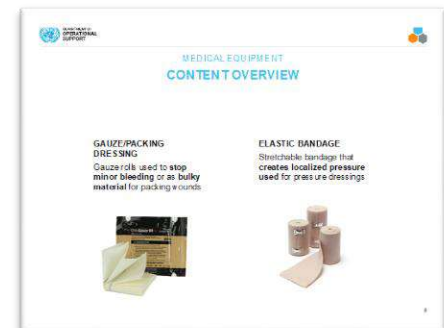
The WMP should be used only for traumatic injuries and is not for routine use. **Drugs should only be administered by trained medical personnel.**



SLIDE 9 – CONTENT OVERVIEW (W-WOUNDS)

Compressed Gauze/Gauze Rolls – Gauze rolls are used to stop minor bleeding, cover wounds/burns, pack wounds, act as bulky material for pressure dressings, or pad pressure points in splinting.

Elastic Bandage – Elastic bandages are used to hold dressings or splints in place or can be applied more tightly to apply localized pressure on a wound.



SLIDE 10 – CONTENT OVERVIEW (H-HYPOTHERMIA)

Hypothermia Prevention Kits/Blankets – Hypothermia prevention kits (active) and blankets (passive) used for preventing/treating hypothermia.



SLIDE 11 – CONTENT OVERVIEW (H-HEAD INJURY/DOCUMENTATION)

MACE Card (MACE2)

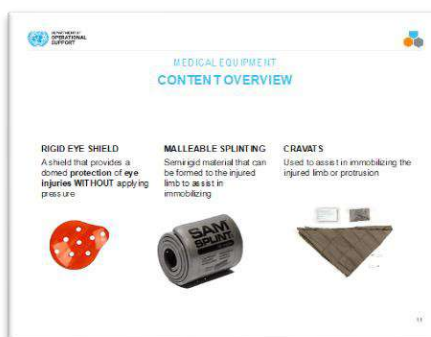


SLIDE 12 – CONTENT OVERVIEW (W-WOUNDS)

Rigid Eye Shield – This plastic or metallic eye shield provides a domed protection of eye injuries without applying pressure. It may be self-adhering or require tape.

Malleable Splint – Read slide.

Cravat – The cravat can be used to secure a splint or to create a sling/swath.



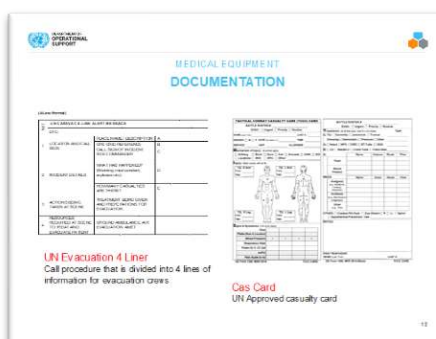
SLIDE 13 – DOCUMENTATION

Casualty Card – This is the UN-approved for official casualty care documentation (of all assessment and treatment outlined by the UN TCCC guidelines) to be completed on every casualty before handoff to another provider and/or evacuation to a medical treatment facility.

NOTE: *This documentation should remain with the casualty throughout the prehospital evacuation system and become part of the casualty's medical record upon reaching a medical treatment facility. The data from the Casualty Card will also be noted on the casualty's medical record.*

NOTE: Many commercially available casualty cards **do not replicate all information** requirements of the Casualty Card. While the Casualty Card may be reproduced locally, it should be on waterproof paper or laminated with a means of attaching it to the casualty. It is best to have an indelible/permanent marker available for writing on the Casualty Card.

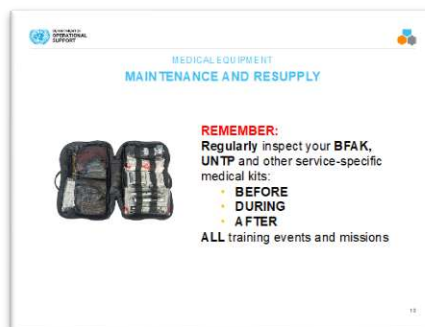
CASEVAC Request Form/Template – This form is used in many units as a template to assist in preparing and sending a 4-line CASEVAC request.



SLIDE 14 – MAINTENANCE AND RESUPPLY

Pre-Deployment readiness checks are critical for every piece of equipment a UN member carries and/or uses.

For the BFAK, UNTP, or service-specific first aid kit, your life or your buddy's life may depend on the readiness and serviceability of the contents. It is critical that you frequently inspect equipment before, during, and after all training events and combat missions. Resupply when needed!



SLIDE 15 – MAINTENANCE AND RESUPPLY (CONT.)

Inventory – Make sure all required/applicable equipment is in the kit.

Seals and wrappers – Items with broken or unsealed wrappers should be replaced. If an item was vacuum sealed tightly when issued and is no longer sealed upon inspection, it should be replaced.

Check expiration dates – Medications and many medical-grade materials such as hemostatic dressings have an expiration date and lot number. Check all medications and medical-grade items for expiration date and replace if expired or the expiration date does not exceed your expected deployment timeframe.

Generally, items such as tourniquets do not have an expiration date, but check to ensure the devices are approved by the UN, are serviceable, and reflect the current generation (have not been replaced with a newer model, etc.).

BEWARE OF UNAPPROVED EQUIPMENT! Only a few items within the BFAK require specific recommendation from the UN. UN recommendations are based on scientific studies, evidence-based medicine, field-use testing, and lessons learned from the battlefield. Always check to ensure your kits are stocked only with UN-recommended/approved items and beware of unapproved equipment.

BEWARE OF FAKES! There are *fraudulent manufacturers* around the world that produce fake, misleading, or substandard pieces of medical equipment, especially those used in the BFAK (tourniquets and hemostatic dressings).

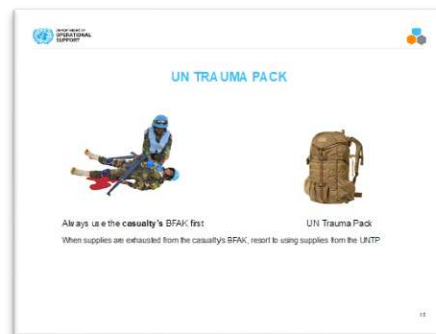
Check unit-specific evacuation equipment. Litters should be inspected for proper functioning and serviceability; litter straps should be checked for locking functions and placement; special evacuation equipment should be checked in accordance with manufacturers' or unit guidelines/standards.



SLIDE 16 – UN TRAUMA PACK

Available medical equipment includes the UNTP and the BFAK. ***Always access the BFAK from the casualty first.***

When supplies are exhausted from the casualty's BFAK, resort to using supplies from the UNTP.



SLIDE 17 – SKILL STATION

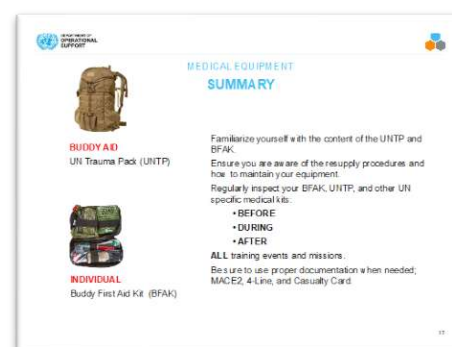
At this time, we will break into skill stations to practice the following skills:

- Familiarization with BFAK & UNTP



SLIDE 18 – SUMMARY

In this module, we discussed medical equipment that Field Medical Assistants use to provide aid and save lives on the battlefield. We described the use of the first aid kit in accordance with UN policy, identified the contents of the Buddy First Aid Kit and other unit specific first aid kits, described general maintenance and resupply procedures for trauma materials in the first aid kits, identified the contents of a UN Trauma Pack, and described how to use the components of a UN Trauma Pack in accordance with UN policy.

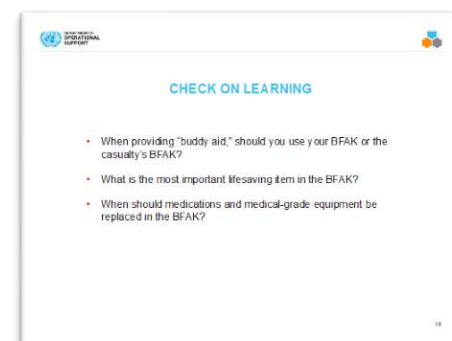


SLIDE 19 – CHECK ON LEARNING

Trainer. Ask questions of the learners, referring to key concepts from the module.

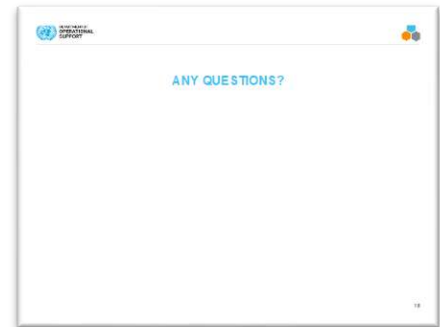
Now for a check on learning.

1. When providing “Buddy Aid,” should you use your BFAK or the casualty’s BFAK?
 - The casualty’s BFAK
2. What is the most important life-saving item in the BFAK?
 - Tourniquet
3. When should medications and medical-grade equipment be replaced in the BFAK?



- All medications and medical-grade items should be replaced if expired or the expiration date is before your expected deployment timeframe.
- Items such as tourniquets do not have an expiration date, but the device may have been replaced by a new generation of the device with improvements. You should seek to replace with newer-generation items, if possible.

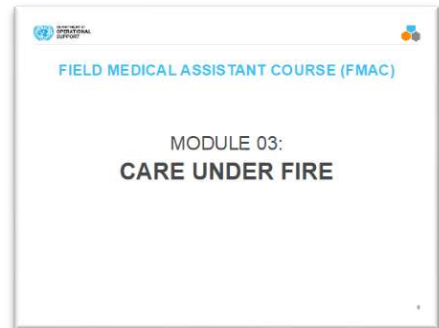
SLIDE 20 – QUESTIONS



MODULE 03

CARE UNDER FIRE

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

UN Tactical Combat Casualty Care is broken up into **two** roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



SLIDE 3 – TLO/ELO

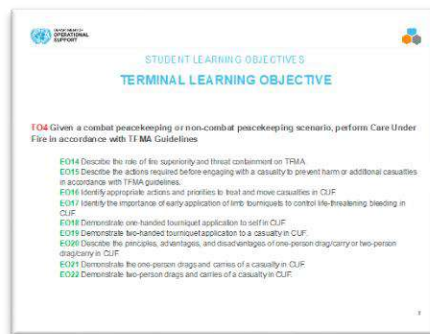
The Care Under Fire (CUF) module has five cognitive learning objectives and four performance learning objectives. The cognitive learning objectives are to:

1. Describe the role of fire superiority and threat containment and the impact of the tactical environment on United Nations Tactical Combat Casualty Care (UN TCCC)
2. Describe the actions required before engaging with a casualty to prevent harm or additional casualties in accordance with UN TCCC guidelines
3. Identify appropriate actions and priorities to treat and move casualties in CUF
4. Identify the importance of early application of limb tourniquets to control life-threatening bleeding
5. Describe the principles, advantages, and disadvantages of one-person drag/carry or two-person drag/carry in CUF

The four performance learning objectives are to:

1. Demonstrate the one-handed tourniquet application to self in CUF
2. Demonstrate the two-handed tourniquet application to a casualty in CUF
3. Demonstrate the one-person drag/carry of a casualty in CUF
4. Demonstrate the two-person drag/carry of a casualty in CUF

The initial priority of CUF is to return fire, suppress the enemy, and gain fire superiority. Treatment priorities while still under effective enemy fire/threat are addressing massive hemorrhage with tourniquets and moving the casualty to cover.



SLIDE 4 – THREE PHASES OF UN TCCC

CUF is the first of three phases of UN TCCC. It is the lifesaving care provided while still under active enemy fire or threat. Actions are prioritized to suppress enemy fire, gain fire superiority to prevent further harm or additional casualties, identify and control life-threatening bleeding, and move the casualty to cover.



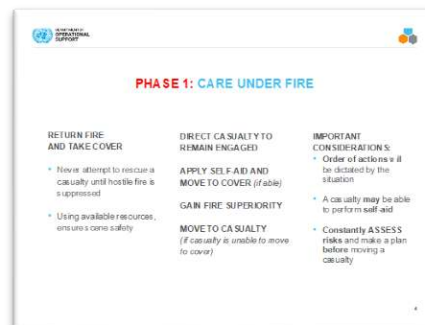
SLIDE 5 – PHASE 1: CARE UNDER FIRE

CUF is the care rendered by the first responder/FMA at the scene of the injury while still under effective hostile fire. Available medical equipment is limited to that carried by the individual responder or casualty (Buddy First Aid Kit (BFAK) or a UN Trauma Pack (UNTP). Remember: Always use the casualty's BFAK first.

The critical feature of CUF is that the casualty and responder/FMA are still under effective hostile fire.

The mission does not stop just because there is a casualty. Most battlefield casualty scenarios involve making medical and tactical decisions rapidly. In the combat environment there is no “time-out” when casualties occur. Good medicine can sometimes be bad tactics; doing the RIGHT thing at the WRONG time can get you and your teammates killed or cause the mission to fail.

Remember: Do not become a casualty! Assess the situation and the risk. Suppress enemy fire and gain fire superiority first. Communicate with and direct the casualty to return fire, move to cover, apply self-aid, and develop a plan before moving to care for a casualty under fire.



SLIDE 6 – ROLE OF FIRE SUPERIORITY

Remember to return fire and take cover. **The best medicine on the battlefield is fire superiority!**



SLIDE 7 – FIRE SUPERIORITY PRINCIPLES

Order of initial actions will be dictated by the tactical situation.

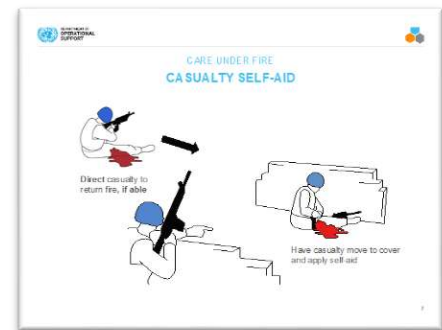
Little time is available to provide casualty care while under effective enemy fire. Suppressing hostile fire and gaining fire superiority should be the priorities to minimize the risk of injury to other personnel and minimize additional injury to the casualty while completing the mission. Personnel may need to assist in returning fire instead of stopping to care for casualties (this includes the casualty if they are still able to fight).

Wounded UN members who are exposed to enemy fire should be directed to continue to return fire, move as quickly as possible to any nearby cover, and perform self-aid if able.



SLIDE 8 – CASUALTY SELF-AID

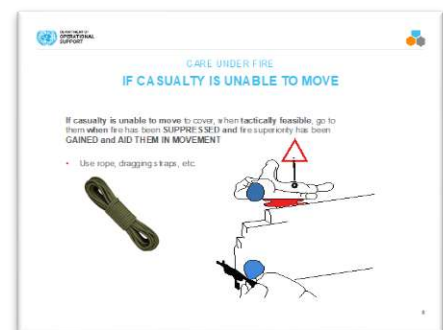
If the casualty is responsive and able, the first responder/FMA should direct the casualty to return fire, apply self-aid (tourniquet), re-engage, and move to cover (if possible).



SLIDE 9 – IF CASUALTY IS UNABLE TO MOVE

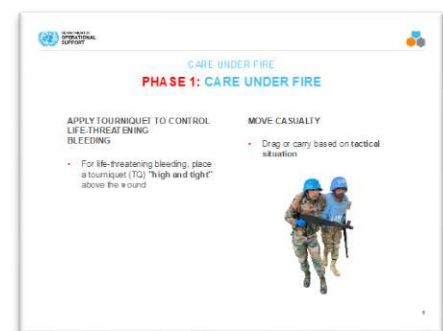
If a casualty is responsive but can't move, a rescue plan should be devised and executed if tactically feasible.

Do not put two people at risk if it can be avoided. If cover is not available or the wounded UN member cannot move to cover, they should lie flat and motionless.



SLIDE 10 – PHASE 1: CARE UNDER FIRE

If the casualty cannot apply self-aid or move to cover, devise and execute a rescue plan to reach the casualty. Apply a tourniquet “high and tight” as quickly as possible to stop bleeding (within 1 minute, ideally) and move the casualty to cover. A casualty can bleed to death in as little as 3 minutes. The faster you apply a tourniquet, the better the outcome and the less chance of shock and death.



SLIDE 11 – MASSIVE BLEEDING IN CARE UNDER FIRE

Remember: If you can do only ONE thing for the casualty, it should be to identify and stop life-threatening bleeding, and keep them from bleeding to death.



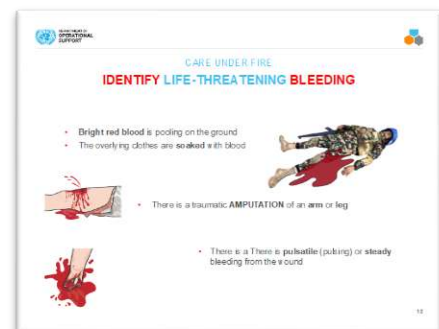
SLIDE 12 – CARE UNDER FIRE OVERVIEW – BLEEDING CONTROL (VIDEO)

Play the video.



SLIDE 13 – IDENTIFY LIFE-THREATENING BLEEDING

The following are examples of when bleeding is considered life-threatening: 1) there is a traumatic amputation of an arm or leg; 2) there is pulsing or steady bleeding from the wound; 3) blood is pooling on the ground; 4) the overlying clothes are soaked with blood; 5) bandages or makeshift bandages used to cover the wound are ineffective and are steadily becoming soaked with blood; 6) there was prior bleeding, and the patient is now in shock (unconscious, confused, pale). If you see any of these examples, it means that a tourniquet is needed to stop life-threatening bleeding.



You may not really know if hemorrhage is life-threatening until the Tactical Field Care phase when the wound can be exposed and evaluated. If a life-threatening hemorrhage is suspected, you should treat it immediately.

Remember during CUF the only medical intervention is applying a tourniquet to stop life-threatening bleeding from an extremity injury. Other wounds (neck, armpit, groin, or abdomen) are not treated during CUF. If the casualty is able, direct them to apply pressure to the wounds as self-aid. Airway and other issues are also not treated until the TFC phase.

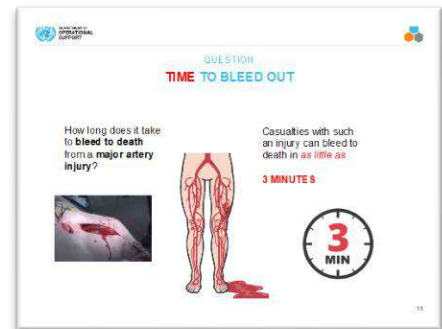
Notes about the tourniquet:

- Constricting band placed around an arm or leg to stop bleeding
- Typically, 2 inches wide
 - Width reduces tissue damage
- Quick to apply and can stop life-threatening extremity bleeding
- High and tight during CUF
- 2–3 inches above the wound during TFC
- Do not document the tourniquet time during CUF; document during TFC

SLIDE 14 – TIME TO BLEED OUT

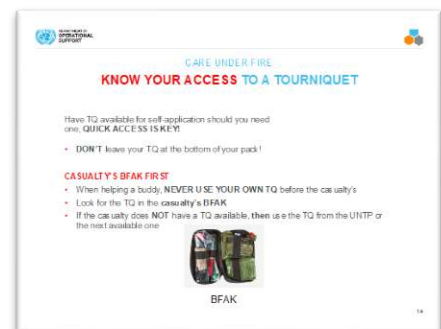
The number one medical priority in CUF is early control of severe bleeding. Extremity hemorrhage is the most frequent cause of preventable battlefield deaths. Over 2,500 deaths occurred in Vietnam secondary to hemorrhage from extremity wounds. A large number of deaths in Iraq and Afghanistan were also seen from hemorrhage. Injury to a major vessel can quickly lead to shock and death. Only life-threatening bleeding warrants intervention during Care Under Fire. Casualties with injuries to large central blood vessels (like the femoral artery in the groin, the axillary artery in the arm, or the carotid artery in the neck) can bleed to death in as little as 3 minutes.

Play video of Care Under Fire Bleeding Video.



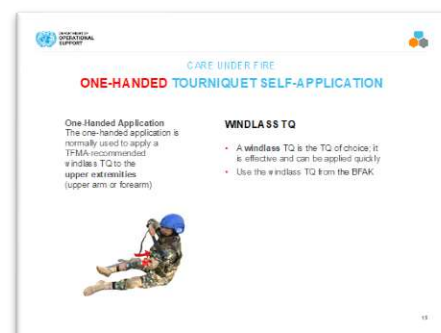
SLIDE 15 – KNOW YOUR ACCESS TO A TOURNIQUET

All personnel on peacekeeping missions should have a UN TCCC-recommended tourniquet readily available (standard location on their battle gear) and be trained in its use. Casualties should be able to easily and quickly reach and apply their own tourniquet. Tourniquets should **NEVER** be at the bottom of the pack. Always use the casualty's tourniquet (BFAK) first.



SLIDE 16 – ONE-HANDED TOURNIQUET SELF-APPLICATION

Casualty may need to apply one-handed tourniquet to an upper extremity when applying self-aid. Onehanded tourniquets are used to apply self-aid for bleeding from an injury to the upper arm or forearm.



SLIDE 17 – ONE-HANDED WINDLASS TOURNIQUET APPLICATION (VIDEO)

Play the video.



SLIDE 18 – ONE-HANDED TOURNIQUET APPLICATION CRITICAL POINTS

All personnel on combat missions should have a UN TCCC-recommended tourniquet readily available (standard location on their battle gear) and be trained in its use. Casualties should be able to easily and quickly reach and apply their own tourniquet.



SLIDE 19 – BUDDY AID IF CASUALTY IS UNRESPONSIVE OR UNABLE TO MOVE

If a casualty is unresponsive and/or unable move, a rescue plan should be devised and executed if tactically feasible. Do not put two people at risk if it can be avoided. If cover is not available or the wounded UN member cannot move to cover, they should lie flat and motionless. Quickly perform a blood sweep (looking for major bleeding). Apply a hasty tourniquet high and tight on the injured extremity and get to cover as quickly as possible. Be sure to use equipment (tourniquet) in the casualty's BFAK and not your own. Do not put a tourniquet directly over the knee or elbow or over a holster or cargo pocket that contains bulky items.



SLIDE 20 – TWO-HANDED (WINDLASS) TOURNIQUET APPLICATION (VIDEO)

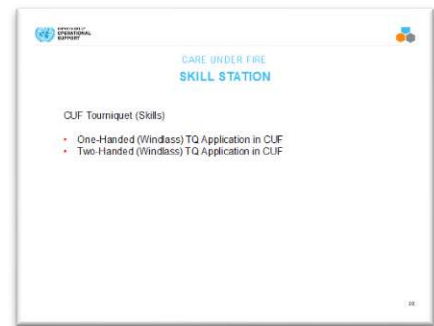
Play the video.



SLIDE 21 – SKILL STATION

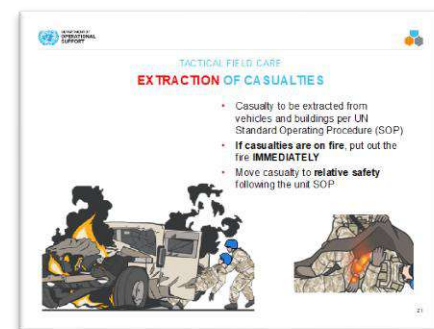
At this time we will break into skill stations to practice the following skills:

- One-Handed (Windlass) TQ Application in CUF
- Two-Handed (Windlass) TQ Application in CUF



SLIDE 22 – EXTRACTION OF CASUALTIES

Follow UN standard operating procedures for removing/extracting casualties from vehicles. If the casualty is on fire, put out the fire, address life-threatening bleeding with a tourniquet if indicated, and move to cover as quickly as possible.



SLIDE 23 – CRITICAL OBJECTIVES FOR THE ONE- OR TWO-PERSON DRAG/CARRY

Remember: Once a tourniquet has been applied, the priority is to get the casualty to the nearest cover and out of effective enemy fire/threat.

Carries and drags will enable the first responder/FMA to do this as quickly as possible without causing further harm to the casualty.



SLIDE 24 – ONE-PERSON DRAG/CARRY

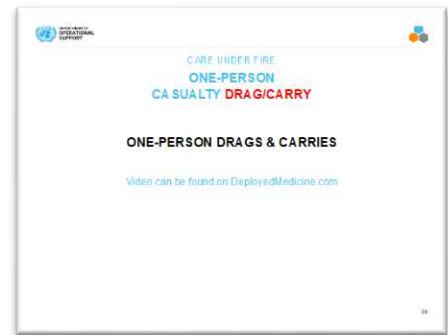
A variety of effective carries can be used depending on the casualty's level of consciousness, enemy threat level, terrain, etc.

Here are some examples of the one-person drag/carry: support carry (for a conscious casualty), neck drag (helps limit exposure from enemy fire based on low crawl of rescuer), kit/arm drag (rescuer pulls casualty backwards to safety), and cradle-drop, which allows rescuer to move the casualty short distances.



SLIDE 25 – ONE-PERSON CASUALTY DRAG/CARRY (VIDEO)

Play the video.



SLIDE 26 – TWO-PERSON DRAG/CARRY

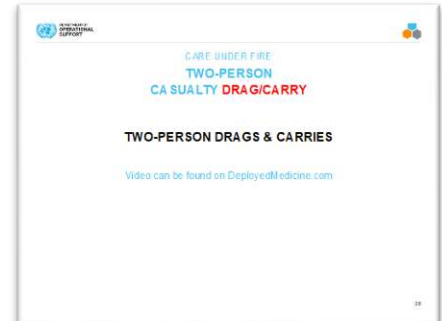
A variety of effective carries can be used, depending on the casualty's level of consciousness, enemy threat level, terrain, etc.

Some examples of the two-person drag/carry include: two-man supporting carry (casualty is carried between two rescuers), kit/arm (two rescuers drag the casualty by their drag handle), and fore/aft (casualty is carried between two rescuers moving forward in unison).



SLIDE 27 – TWO-PERSON DRAG/CARRY (VIDEO)

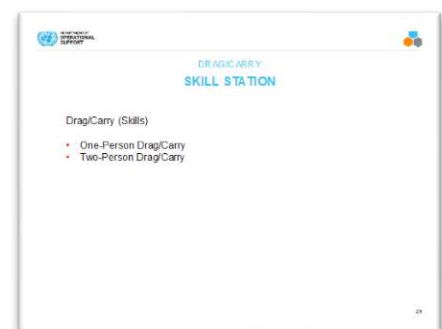
Play the video.



SLIDE 28 – SKILL STATION

At this time, we will break into skill stations to practice the following skills:

- One-Person Drag/Carry
- Two-Person Drag/Carry



SLIDE 29 – SUMMARY

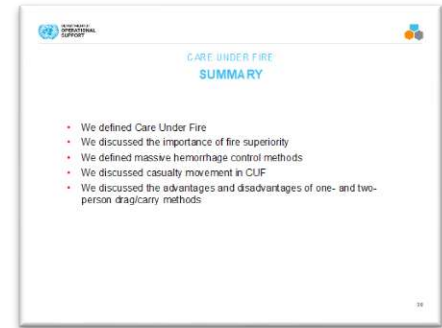
Care Under Fire is the care rendered by the first responder/FMA at the scene of the injury while still under effective hostile fire.

Remember to return fire and take cover. **The best medicine on the battlefield is fire superiority!**

If you can do only **ONE thing for the casualty**, identify and stop life-threatening bleeding, and keep them from bleeding to death by using a UN TCCC-recommended tourniquet.

Once a tourniquet has been applied, the priority is to get the casualty to the nearest cover and out of effective enemy fire/threat.

Drag/carry will enable the first responder/FMA to do this as quickly as possible without causing further harm to the casualty.



SLIDE 30 – CHECK ON LEARNING

Ask questions of the learners, referring to key concepts from the module.

Now for a check on learning.

1) What is Care Under Fire?

- Care Under Fire is the care given by the first responder at the scene of the injury while they and the casualty are still under effective hostile fire or near the threat. Available medical equipment is limited to that carried in the individual UN member's BFAK.

2) What are the signs of life-threatening bleeding?

- Bright red blood is pooling on the ground
- The overlying clothes are soaked with blood
- There is a traumatic AMPUTATION of an arm or leg
- There is pulsatile (pulsing) or steady bleeding from the wound

3) How long does it take to bleed to death from a complete femoral artery and vein disruption?

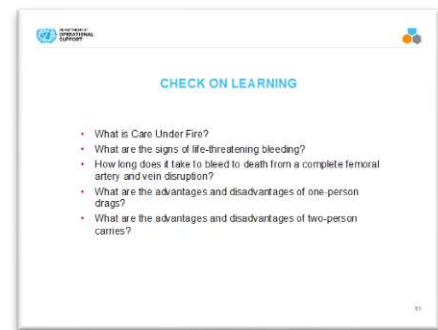
- 3 minutes

4) What are the advantages and disadvantages of a one-person drag?

- Advantages: No equipment required and only one rescuer is exposed to enemy fire.
- Disadvantages: Relatively slow to move the casualty; does not allow optimal body position for dragging the casualty; can be tiring for the first responder if the patient is heavy or wearing a lot of gear.

5) What are the advantages and disadvantages of a two-person carry?

- Advantages: May be useful in situations where drags do not work well; less painful for the casualty than dragging; quicker than most one-person carries.



- Disadvantages: Causes the rescuers to have a higher silhouette than most drags, exposing them to possible hostile fire; hard to accomplish with the rescuer's and/or the casualty's equipment being worn.

SLIDE 31 – QUESTIONS



MODULE 04

PRINCIPLES AND APPLICATION OF TFC

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

UN Tactical Combat Casualty Care is broken up into **two** roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

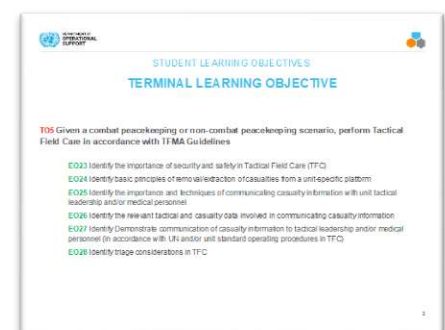
Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



SLIDE 3 – TLO/ELO

Principles and Applications of Tactical Field Care module has five cognitive learning objectives and one performance learning objective. The cognitive learning objectives are to identify:

1. The importance of security and safety in Tactical Field Care
2. Basic principles of removal/extraction of casualties from a unit-specific platform



3. The importance and techniques of communicating casualty information with unit tactical leadership and/or medical personnel
4. The relevant tactical and casualty data involved in communicating casualty information, and identify triage considerations in Tactical Field Care

The performance learning objective is to demonstrate communication of casualty information to tactical leadership and/or medical personnel (in accordance with UN and/or unit standard operating procedures in TFC).

It is critical to identify the importance of maintaining situational awareness during TFC, as the tactical situation is fluid and may revert to CUF at any time.

SLIDE 4 – THREE PHASES OF UN TCCC

TFC is the second of three phases of UN TCCC.

It is the care provided once the responder and casualty are no longer under direct threat from effective enemy fire.



SLIDE 5 – CASUALTY AND RESPONDER NO LONGER UNDER EFFECTIVE ENEMY FIRE OR THREAT

TFC is the care rendered by a first responder/FMA once the responder and casualty are no longer under direct threat from effective enemy fire.

This allows for the time and the relative safety for a more deliberate approach to casualty assessment and treatment.



SLIDE 6 – PHASE 2: TACTICAL FIELD CARE

Casualty assessment and management in TFC follows a more deliberate approach known as MARCH PAWS:

Massive bleeding
Airway
Respiration/breathing
Circulation
Hypothermia/Head Injuries

Pain
Antibiotics
Wounds
Splinting



This is a helpful mnemonic for remembering how to systematically approach casualty assessment and management, ensuring that life-threatening injuries are identified and treated promptly to save lives on the battlefield and reduce preventable combat deaths.

Keep in mind, even when you are in the TFC phase, it does not mean that the danger is over. The tactical situation could change back to CUF again at any time. FMAs must maintain security and situational awareness while continuing the assessment, treatment, and preparation of casualties for handoff to medical personnel/evacuation while remaining prepared to engage the enemy and continue the unit mission at any time.

SLIDE 7 – SECURITY AND SAFETY IN TACTICAL FIELD CARE

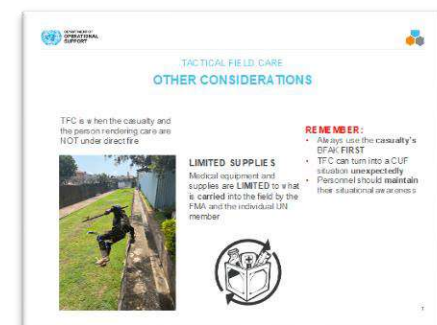
Establish a security perimeter in accordance with unit tactical standard operating procedures and/or battle drills.

Maintain tactical situational awareness. Casualties with altered mental status should be disarmed, have communications secured, and have sensitive items redistributed.



SLIDE 8 – OTHER CONSIDERATIONS OF TACTICAL FIELD CARE

In TFC, medical equipment that is available will be limited to that carried into the field by the casualty (their BFAK), the first responder/FMA (BFAK or UN Trauma Pack UNTP), or a responding medic (aid bag, etc.). Remember, whenever possible, use the casualty's BFAK supplies first.



SLIDE 9 – CASUALTY REMOVAL/EXTRACTION PRINCIPLES

Although the types of extractions you may encounter will vary based on your unit mission and the vehicles you use or locations you encounter, a couple of principles have universal application and can apply to most extraction situations.

The first principle is safety. The worst outcome would be to have additional casualties during an extraction attempt, and almost all extraction scenarios have some compromised safety; whether that is from fires at the removal site, vehicle rollovers that are unstable, condemned buildings that are structurally compromised, or some other scene issues.



The second principle is that the concept of MARCH still applies, and the treatment priorities do not change because the casualty is in a position that is difficult to access. If lifesaving treatments like limb tourniquet application can be done before extraction, they should be completed and monitored throughout the extraction process. If the casualty is in a position where access to provide those treatments can't be accomplished, then they need to be moved as quickly as is safely possible. To that end, if a cervical spine injury might be suspected, the delay to immobilize the spine may lead to a bad outcome and shouldn't be prioritized over accessing the casualty to perform other lifesaving interventions.

The third principle is that it is important to spend time training, before deployments and during deployments, on how to extract and remove casualties from the unit assets and tactical environments that you are most likely to encounter while performing your unit mission. The unit medical team may organize these, but as a combat lifesaver it is also your responsibility to ensure the unit is properly trained to help support you if an extraction is needed.

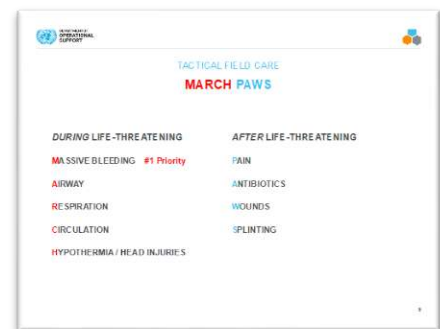
SLIDE 10 – MARCH PAWS

When you are in Tactical Field Care, follow the MARCH PAWS sequence in assessing the casualty.

A full tactical trauma assessment should follow the MARCH PAWS sequence.

Massive bleeding
Airway
Respiration/breathing
Circulation
Hypothermia/Head Injuries

Pain
Antibiotics
Wounds
Splinting



SLIDE 11 – COMMUNICATION

FMAAs will continue treatment until handoff with medical personnel and should communicate with:

1. The casualty throughout assessment and treatment
2. Tactical leadership about casualty status and evacuation requirements
3. The evacuation system (CASEVAC), including 4-line CASEVAC request/MIST
4. Medical providers about casualty assessment and treatment (Casualty Card)

Communicate with the casualty throughout care. Being physically wounded may generate significant anxiety and fear above and beyond the psychological trauma of combat. Talking frankly with the casualty about their injuries and offering reassurance by describing the



treatments being rendered and emphasizing that everything possible is being done on their behalf and that they will be well taken care of will help to counter their anxiety. **Be honest about the injuries sustained** but maintain a positive talking through procedures helps maintain your own confidence and the casualty's confidence in you.

Communicate with tactical leadership ASAP and throughout casualty treatment. Tactical leadership needs to understand the impact on the mission. For example, tactical leadership may need to know:

- How many casualties were inflicted?
- Who is down as a casualty?
- Can the casualty still fight?
- Has the enemy threat been eliminated?
- Are weapons systems down or fields of fire not covered because the unit has taken casualties?
- Is it necessary to have others fill in the casualties fighting positions? Or do the casualties need to be moved?

Communicate with the evacuation coordination cell to arrange for CASEVAC.

Communicate with medical providers about details of the casualty injuries. This includes 4-line communication and ongoing MIST reports.

Medical leadership may need to know:

- What injuries were sustained?
- What is the mental and physical status of each casualty?
- What treatments were needed and rendered?
- Does the medic need to triage multiple casualties?
- Should the medic move to a casualty, or should the casualty be moved to the medic?
- Does the unit need to break out litters or extraction equipment?

SLIDE 12 – COMMUNICATE RELEVANT CASUALTY DATA

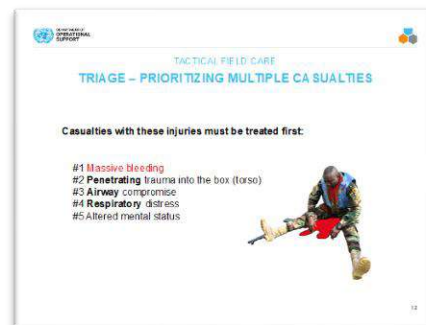
Document all assessment and care provided (including medications and interventions) on the Casualty Card. Communicate with CASEVAC using a **4-line CASEVAC** request and **MIST Report**.



SLIDE 13 – TRIAGE – PRIORITIZING MULTIPLE CASUALTIES

FMA should consider these priorities (following MARCH) to decide how to prioritize treatment of multiple casualties in the TFC phase of care:

- #1 Massive bleeding
- #2 Penetrating trauma
- #3 Airway
- #4 Respiratory distress
- #5 Altered mental status



SLIDE 14 – TRIAGE CONSIDERATIONS

“Triage Considerations” means casualties may need to be sorted into prioritized treatment groups.

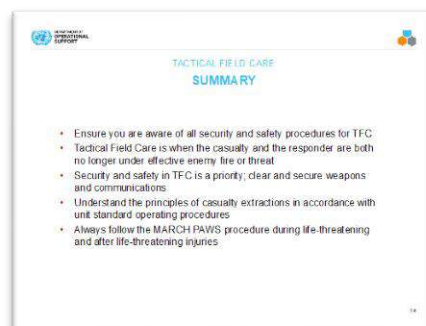
The FMA may be required to assist medical personnel with urgent casualties.

The FMA may be assigned to monitor casualties after emergency interventions; the FMA may be tasked with preparing casualties for evacuation.



SLIDE 15 – SUMMARY

In this module, we discussed the principles and applications of TFC, emphasizing the need to maintain situation awareness. We identified the importance of security and safety in TFC, the basic principles of casualty removal and extraction from a unit-specific platform, techniques for communicating casualty information with unit tactical leadership and medical personnel, relevant tactical and casualty data involved in communicating casualty information, and triage considerations.



SLIDE 16 – CHECK ON LEARNING

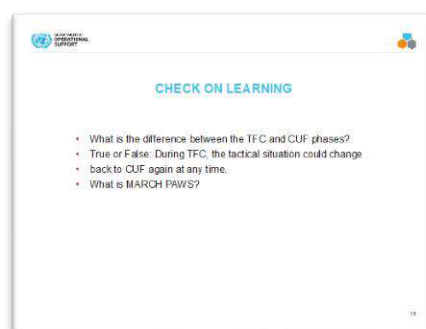
Ask questions of the learners referring to key concepts from the module.

Now for a check on learning:

1) What is the difference between the TFC and CUF phases?

- TFC is distinguished from CUF by a reduced level of threat from hostile fire (the shooting has stopped – or enemy fire is ineffective), and relatively more time available to provide care, depending on the tactical situation and available medical equipment (still limited but often includes additional equipment carried in the UNTP, medic bags, or in medical kits in tactical vehicles).

2) True or False: During TFC, the tactical situation could change back to CUF, again at any time.



- True

3) What is MARCH PAWS?

- The MARCH PAWS sequence is the mnemonic for UN TCCC assessment and treatment of casualties, which enables systematic identification and intervention of life-threatening injuries that could result in preventable combat deaths.

SLIDE 17 – QUESTIONS



MODULE 05

TACTICAL TRAUMA ASSESSMENT

SLIDE 1 – TITLE SLIDE

This module is an overview of tactical trauma assessment (TTA). The skills practice will take place near the end of the course after you have learned ALL of the skills.



SLIDE 2 – UN TCCC ROLES

UN Tactical Combat Casualty Care is broken up into **two** roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

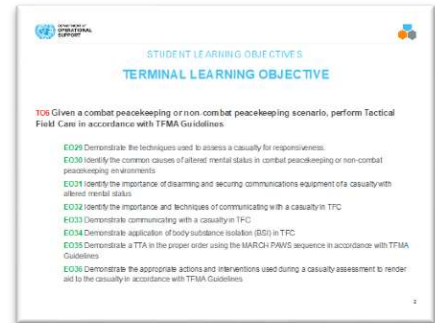
Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



SLIDE 3 – TLO/ELO

The Tactical Trauma Assessment (TTA) module has three cognitive learning objectives and five performance learning objectives. The cognitive learning objectives are to identify the:

1. Common causes of altered mental status in combat or noncombat environments
2. Importance of disarming and securing communications equipment of a casualty with altered mental status
3. Importance and techniques of communicating with a casualty in TFC



The performance learning objectives are to demonstrate:

1. Techniques used to assess a casualty for responsiveness
2. Communication with a casualty in Tactical Field Care
3. Application of body substance isolation (BSI) in TFC
4. TTA in the proper order using the MARCH PAWS sequence in accordance with UN TCCC guidelines
5. Appropriate actions and interventions used during a casualty assessment to render aid to the casualty in accordance with UN TCCC Guidelines.

The critical aspects are to identify the importance of and demonstrate the systematic approach for assessment and interventions in providing lifesaving care to a casualty following the MARCH PAWS sequence in accordance with the UN TCCC guidelines.

SLIDE 4 – MARCH PAWS

A full tactical trauma assessment should follow the MARCH PAWS sequence.

Massive bleeding

Airway

Respiration/breathing

Circulation

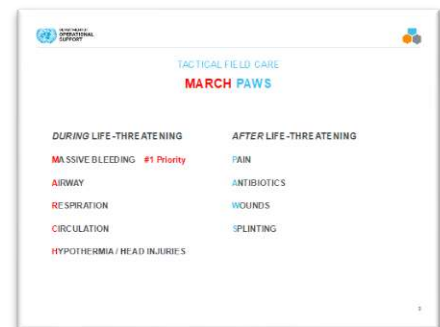
Hypothermia/Head Injuries

Pain

Antibiotics

Wounds

Splinting



We will cover the interventions and procedures of MARCH PAWS in more detail in later modules.

SLIDE 5 – TACTICAL TRAUMA ASSESSMENT HOW-TO (VIDEO)

Play video

Pay attention to this video. You will be expected to perform a full TTA upon completion of this training.



SLIDE 6 – COMBAT SPEED TTA "FIRE FIGHT CONSCIOUS CASUALTY" (VIDEO)

Play video



SLIDE 7 – COMBAT SPEED TTA "EXPLOSION" UNCONSCIOUS CASUALTY (VIDEO)

Play video



SLIDE 8 – BODY SUBSTANCE ISOLATION (BSI)

Whenever possible, the responder/TFA should don latex-free gloves as a BSI precaution.

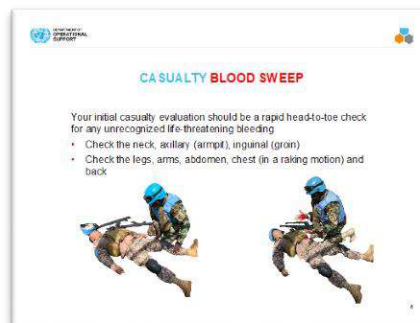
Gloves are provided in the BFAK and UNTP bags.



SLIDE 9 – CASUALTY BLOOD SWEEP

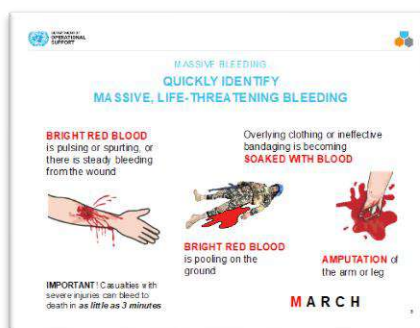
Your initial casualty evaluation should be a rapid head-to-toe check for any unrecognized life-threatening bleeding (a blood sweep).

This blood sweep should include a visual and hands-on (palpation) inspection of the front and back of the casualty from head to toe, including neck, armpits, groin, etc.



SLIDE 10 – QUICKLY IDENTIFY MASSIVE, LIFE-THREATENING BLEEDING

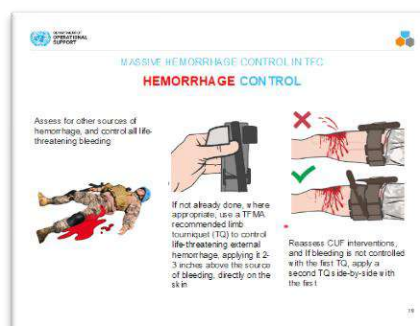
This blood sweep is a systematic way to ensure rapid identification of any unrecognized life-threatening bleeding.



SLIDE 11 – HEMORRHAGE CONTROL

If you identify life-threatening bleeding that was missed in the Care Under Fire phase, immediately apply a tourniquet or hemostatic dressing, and/or pressure dressing.

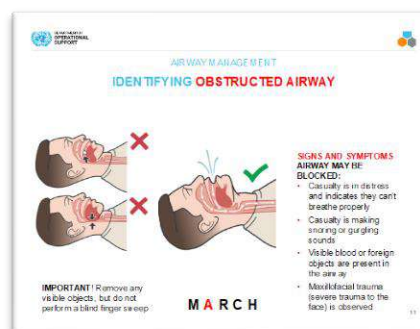
If a tourniquet was previously applied but bleeding is not controlled, apply a second tourniquet side-by-side with the original tourniquet, preferably higher on the injured limb, if possible, to control the bleeding. This is the “M” of MARCH PAWS.



SLIDE 12 – IDENTIFYING OBSTRUCTED AIRWAY

Evaluate the casualty's airway and ensure the airway is open. **LOOK** (for rise and fall of the chest), **LISTEN** (for sounds of breathing), and **FEEL** (breath on your cheek) for indications of trouble breathing, snoring or gurgling sounds, visible objects obstructing the airway, and any severe trauma to the face.

Do not do a blind finger sweep.



SLIDE 13 – IN A CASUALTY WITHOUT AN AIRWAY OBSTRUCTION, YOU CAN PERFORM THE FOLLOWING MANEUVERS TO OPEN THE AIRWAY

If a casualty is unconscious, the tongue may have relaxed, causing an airway blockage. Use the head-tilt chin-lift or jaw-thrust method to open the airway. **Important note:** If a neck or spinal injury is suspected, use the jaw-thrust method to open the airway.

This is the first “A” of MARCH PAWS.

NOTE: Once the airway has been opened using one of these maneuvers, the casualty may require repeated/continued maneuvers to maintain an open airway.



SLIDE 14 – MANAGING THE AIRWAY

If the casualty is unconscious or semiconscious but breathing on their own AND you do not identify an airway obstruction, you may be able to better support airway management through the use of a nasopharyngeal airway (NPA). This can help open/maintain a conscious or unconscious casualty's airway.

Note any clear fluid coming from the nose or ears. This may be cerebrospinal fluid, which indicates a possible skull fracture. Do not attempt to place an NPA if clear fluid is coming from the nose or ears.

If airway maneuvers and nasopharyngeal airway are ineffective at opening or maintaining an open airway, notify medical personnel.



SLIDE 15 – MANAGEMENT/RECOVERY POSITION

If the casualty is **conscious**, allow them to assume any position that best protects the airway and allows them to breathe easily, including sitting up.

Place an **unconscious casualty** in the recovery position. If an NPA was inserted into the right nostril, place the casualty on their right side, if possible.



SLIDE 16 – RESPIRATIONS

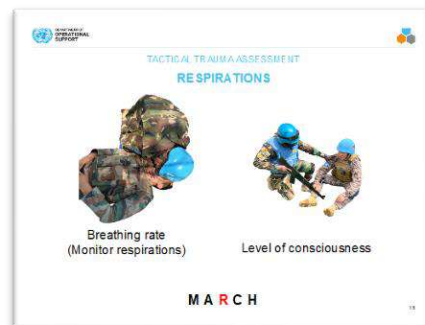
LOOK (for rise and fall of the chest), **LISTEN** (for sounds of breathing), and **FEEL** (breath on your cheek) for indications of trouble breathing (as noted for airway previously).

Respiration rate (breaths per minute) and quality (shallow, labored, etc.) should be noted.

Indications of respiratory distress include:

- Breathing that is progressively difficult
- Decreased breathing sounds
- Distended neck veins
- Opposed to “progressive” respiratory distress
- Hunched over; they need to be in the “position of comfort”
- Agitation due to a lack of oxygen
- High pulse

This is the “R” of MARCH PAWS.



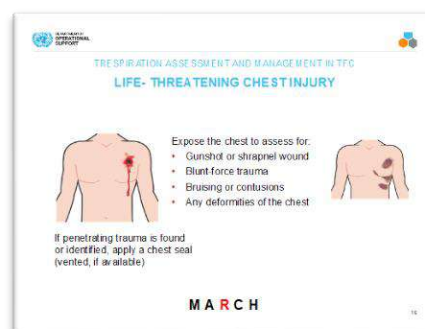
SLIDE 17 – LIFE-THREATENING CHEST INJURY

Common causes of chest injuries include gunshot, stab, or shrapnel wounds to chest and blunt-force trauma.

Note obvious signs of penetrating trauma, bruising, swelling, crackling/popping (on palpation), or other deformities of the chest. **Check** the casualty’s respiration and ability to breathe. All open and/or sucking chest wounds should be treated by immediately applying a vented chest seal to cover the defect.

For respiratory distress not resolved by a chest seal or in a casualty with known or suspected chest or back trauma without an open and/or sucking chest wound, consider a tension pneumothorax, and perform a needle decompression of the chest.

Injuries to the chest are very serious and can be life-threatening. The casualty’s condition can change quickly with a chest injury.



SLIDE 18 – REASSESS TREATMENTS

This is the “C” in MARCH PAWS. The casualty should be reassessed for life-threatening hemorrhage (including effectiveness of prior interventions-TQs, pressure bandages, etc.).

Is there an obvious pelvic or femur fracture? If so, a medic should be informed immediately. Assess the radial pulse.

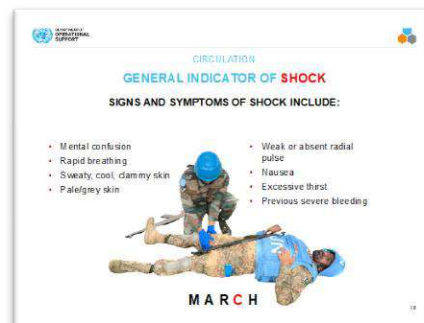
If the pulse is absent or weak, shock should be suspected and a medic should be informed immediately.



SLIDE 19 – GENERAL INDICATOR OF SHOCK

The TFA should be familiar with the signs/symptoms of shock. In the combat environment, shock is assumed to be due to blood loss.

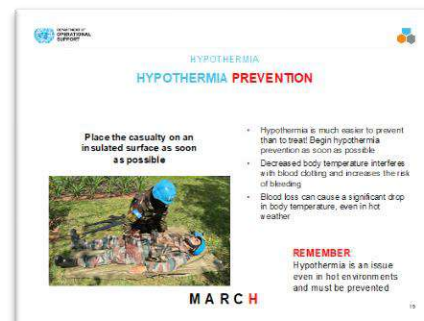
If untreated, shock could lead to death. If shock is suspected, a medic should be informed immediately.



SLIDE 20 – HYPOTHERMIA PREVENTION

Prevent hypothermia by minimizing the casualty's exposure to the elements and applying active hypothermia prevention measures, when possible.

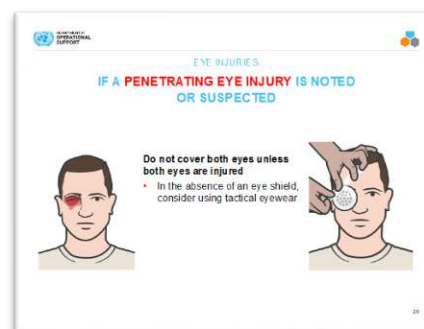
If no rewarming equipment is available, then use dry blankets, poncho liners, sleeping bags, or anything that will retain heat and keep the casualty dry. Make sure you assess for hemorrhagic shock and ensure bleeding is controlled.



SLIDE 21 – IF A PENETRATING EYE INJURY IS NOTED OR SUSPECTED

Perform rapid field test of visual acuity (e.g., read Meals Ready to Eat (MRE) label, or name tag).

If the casualty has any penetrating injuries, they should take the antibiotic in the Wound Medication Pack (WMP). Cover eye with rigid shield, not pressure patch. **Do not** cover both eyes unless both are injured and you are sure the casualty will not return to the fight.

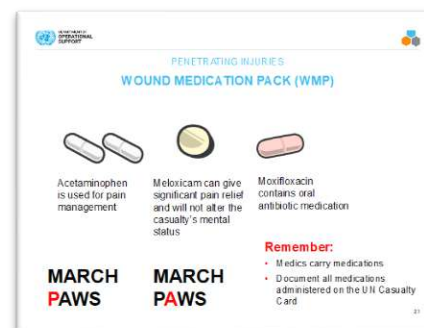


SLIDE 22 – WOUND MEDICATION PACK

The WMP contains drugs for mild to moderate pain (meloxicam and acetaminophen) and an antibiotic specific for penetrating wounds (moxifloxacin).

A WMP can give significant pain relief for mild to moderate pain and will not alter the casualty's mental status. It also includes antibiotics for preventing/treating infections after traumatic injuries, such as penetrating wounds, eye injuries, and burns.

This is the “P” and “A” of MARCH PAWS.



SLIDE 23 – INSPECT AND ADDRESS ALL KNOWN WOUNDS

This is the “**W**” in MARCH PAWS.

All other wounds (burns, fractures, other soft tissue wounds, etc.) should be addressed with splinting, dressings, etc. as appropriate. This will be covered in more detail in a later module.

Note: Reassess pulses after all dressings are placed to ensure that they are not too tight. Do not ever apply one and forget it!



SLIDE 24 – BURN CARE

Stop the burning process by extracting the casualty from the source, and cover the burned areas with dry, sterile dressings.

If the burn is caused by **white phosphorus**, submerge the affected area in water, if possible; otherwise, the dressing must be wet. Advise medical personnel immediately.

Remember to prioritize assessing MARCH before addressing burns. This is part of the “**W**” of MARCH PAWS.



SLIDE 25 – ASSESS FOR A FRACTURE

Assess for **any fractures**, and if present, splint the fracture using whatever materials are available, making sure to immobilize the joint above and the joint below the fracture.

Check pulse(s) before and after applying splints. Treat open fractures with meds (for pain and to prevent infection) with meds from the CWMP.

This is the “**S**” of MARCH PAWS.



SLIDE 26 – COMMUNICATION AND DOCUMENTATION

Communicate with the casualty by reassuring them and telling them about procedures being performed.

Communicate with medical personnel and your **tactical leadership**, and relay casualty status and evacuation needs.

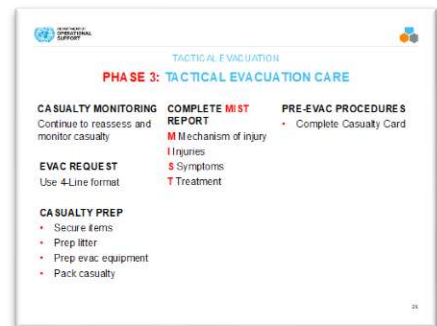


SLIDE 27 – PHASE 3: TACTICAL EVACUATION CARE

Document all assessment and care on a Casualty Card. Every UN member will carry their own Casualty Card in their BFAK. If possible, use a permanent marker (such as a Sharpie) to make entries on the card. When rendering care or assisting medical personnel, include as much information as you can on the card.

This is the official record of the care provided and should go with the casualty when care is handed off to a medic or at the time of evacuation.

Communication includes the **MIST report** and **4-line CASEVAC request**.



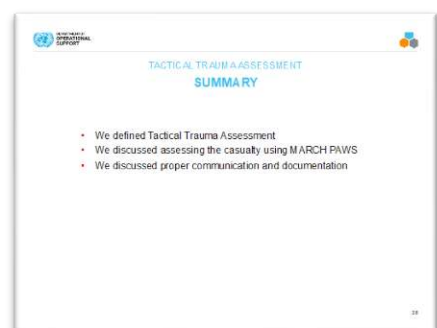
SLIDE 28 – SKILL STATION

At this time we will break for a trainer-led demonstration on TTA.



SLIDE 29 – SUMMARY

In this module, we discussed the TTA. We identified the common causes of altered mental status in combat or noncombat environments, the importance of disarming and securing the communications equipment of a casualty with altered mental status, and techniques for communicating with a casualty in TFC. We also demonstrated techniques for assessing a casualty for responsiveness, applying body substance isolation, conducting a TTA in the proper order using the MARCH PAWS sequence, and using appropriate actions and interventions in a casualty assessment to render aid in accordance with UN TCCC Guidelines.

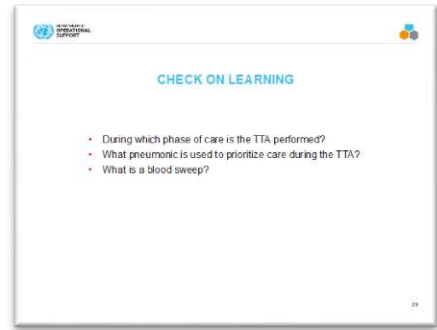


SLIDE 30 – CHECK ON LEARNING

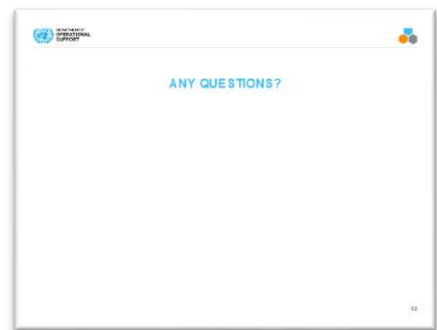
Ask questions of the learners referring to key concepts from the module.

Now for a check on learning:

1. In which phase of care is the TTA performed?
 - TFC
2. What mnemonic is used to prioritize care in the TTA?
 - MARCH PAWS
3. What is a blood sweep?
 - A blood sweep is your initial casualty evaluation. It should be a rapid head-to-toe check for any unrecognized life-threatening bleeding.



SLIDE 31 – QUESTIONS



MODULE 06

MASSIVE HEMORRHAGE CONTROL IN TFC

SLIDE 1 – TITLE SLIDE

Good morning/afternoon, my name is (insert here) and I will be your lead trainer for Module 6: Massive Hemorrhage control in the Tactical Field Care (TFC) environment.

Before we get started are there any questions?



SLIDE 2 – UN TCCC ROLES

UN Tactical Combat Casualty Care is broken up into two roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



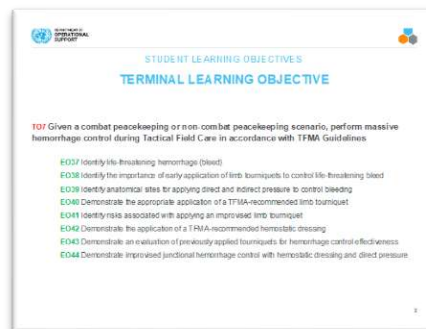
SLIDE 3 – TLO/ELO

The UN TCCC-FMA course is built on a foundation of learning objectives. These objectives lay out the basic structure of the course and describe the knowledge and skills you are expected to acquire by the end of the course.

The module has one Terminal Learning Objective, or TLO. The TLO is supported by a series of Enabling Learning Objectives, or ELOs which include identifying:

- Life-threatening hemorrhage (bleeding)
- Importance of early application of limb tourniquets to control life-threatening bleeding
- Anatomical sites for applying direct and indirect pressure to control bleeding
- Appropriate application of a UN TCCC-recommended limb tourniquet
- Risks associated with applying an improvised limb tourniquet.
- 2. Application of a UN TCCC-recommended hemostatic dressing
- Evaluation of previously applied tourniquet(s) for hemorrhage control effectiveness
- Improvised junctional hemorrhage control with hemostatic dressing and direct pressure

The critical aspects are to identify life-threatening hemorrhage and the importance of prompt intervention and to demonstrate the appropriate interventions for life-threatening hemorrhage in accordance with the UN TCCC guidelines.



SLIDE 4 – THREE PHASES OF UN TCCC

UN TCCC is organized into Phases of Care that start at the point of injury. These phases are relevant to combat and noncombat trauma scenarios:

1. **Care Under Fire or Care Under Threat** is the aid rendered at the trauma scene while there is still an active threat.

Available medical equipment is limited to that carried by an individual or found in a nearby first aid kit. Massive bleeding is the only medical priority that requires your attention during this phase, as you are actively dealing with an ongoing threat in a potentially chaotic and dangerous situation.

2. **Tactical Field Care** is the care provided once the threat has been neutralized and/or the scene is safe or the casualty has moved/been moved out of the immediate threat situation. During this phase a rapid casualty assessment should be performed. Bleeding control should be assessed/reassessed, and airway/breathing issues addressed. Other injuries such as burns, fractures, eye trauma, and head injuries should now be identified and treated. Medical equipment is still limited. Time to arrival of medical personnel or evacuation may vary considerably, depending on the tactical situation, etc.

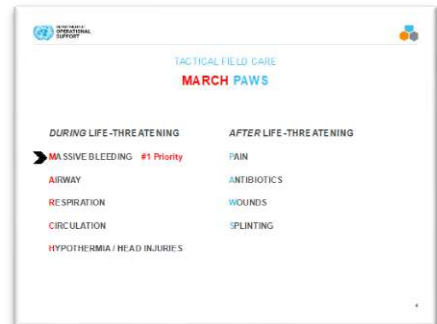
3. **Tactical Evacuation Care** is the care rendered during and once the casualty has been moved by an aircraft, vehicle, or other mode of transportation for evacuation to a higher level of care. Additional medical personnel and equipment are typically available in this phase of casualty care.



Remember: The goal of UN TCCC and the role of the FMA is to rapidly assess casualties to identify and treat potentially life-threatening injuries to keep them alive long enough to reach a higher level of medical care.

SLIDE 5 – MARCH PAWS

Massive bleeding assessment and management is the “M” in the MARCH PAWS sequence and the **#1 priority**.



SLIDE 6 – HEMORRHAGE OVERVIEW IN TFC (VIDEO)

Play video

Summary:

1. Use UN TCCC-approved limb TQ
2. Use hemostatic dressings
3. Use junctional TQs
4. Use pelvic compression device
5. REASSESS all interventions
6. DO NOT apply a TQ and forget it



SLIDE 7 – SECURITY AND SAFETY IN TACTICAL FIELD CARE

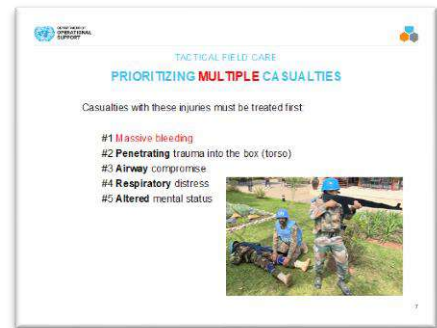
Remember to maintain **security** and tactical situational **awareness** during TFC.

Casualties with altered mental status (due to shock, head injury, or medications) who can no longer fight effectively should have weapons and sensitive items secured so they do not cause harm to themselves, their teammates, or the mission.



SLIDE 8 – PRIORITIZING MULTIPLE CASUALTIES

When you come upon a casualty, multiple injuries may need interventions. However, remember **Massive bleeding** is the **#1 priority**!



SLIDE 9 – WHEN IS BLEEDING LIFE-THREATENING? EARLY CONTROL OF SEVERE HEMORRHAGE IS CRITICAL

This slide show signs of ongoing life-threatening bleeding that *may not have been noted or appropriately* addressed in CUF.



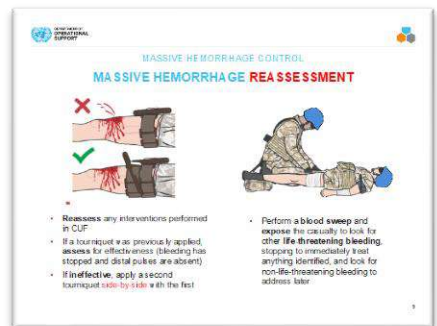
SLIDE 10 – MASSIVE HEMORRHAGE REASSESSMENT

The TFC phase allows the time and relative safety for a more deliberate assessment and treatment (MARCH PAWS). All casualties should be reassessed with a full tactical trauma assessment.

Assessment for massive hemorrhage includes a visual and manual blood sweep of the front and back of the casualty from head to toe (including neck, armpits, and groin).

Any massive hemorrhage identified (newly identified or ineffectively treated during CUF) should be addressed **immediately**.

All tourniquets placed during CUF should be reassessed for effectiveness, tightened if needed, and/or a second tourniquet placed adjacent (side-by-side) to the first to ensure bleeding is effectively stopped.



SLIDE 11 – TOOLS TO CONTROL LIFE-THREATENING HEMORRHAGE

Describe items on the slide and their use.

Direct Pressure: After packing the wound with hemostatic dressing or gauze, hold pressure for 3 minutes.

Gauze/Other Dressings & Pressure Bandages: These items are all UN TCCC-approved hemostatic dressing, etc.

UN TCCC Recommended TQ: They are either windlass or ratchet but have been proven effective in use.

Pressure Delivery Device: A PDD is made using improvised materials, such as a shoe/boot, full water bottle, or canteen, and applies additional pressure to the wound after it has been packed.

Hemostatic Dressing: UN TCCC-recommended hemostatic dressings are safe and contain active ingredients that assist with blood clotting at the bleeding site. Non-UN TCCC-recommended supplies may be available; however, they have not been shown to be effective in controlling massive hemorrhage.



SLIDE 12 – INITIAL DIRECT PRESSURE BEFORE INTERVENTION

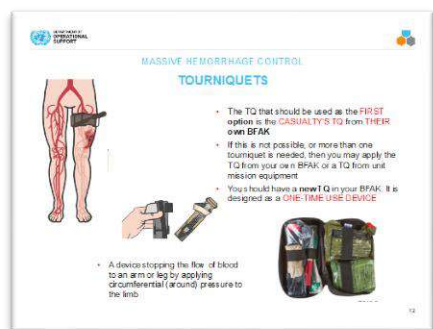
Direct pressure can and should be used as a temporary measure until a tourniquet or dressing is in place. It is difficult to use direct pressure alone to control significant bleeding or while moving the casualty. While packing a wound, maintain constant, direct pressure at the source of bleeding to be effective.



SLIDE 13 – TOURNIQUETS

Remember: A tourniquet is a **one-time** use device.

Never deploy with or use a tourniquet that has been used previously in training, as there is an increased risk of device failure.



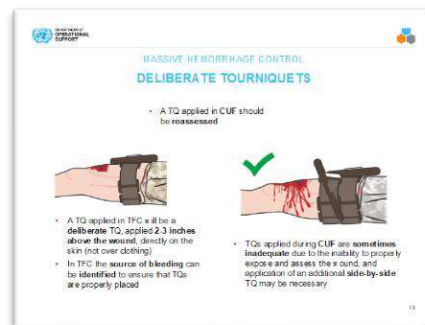
SLIDE 14 – DELIBERATE TOURNIQUETS

In TFC, there is more time to expose the wound and determine the actual site of bleeding.

All tourniquets applied during TFC should be deliberate tourniquets, **applied 2 to 3 inches above the wound** and directly on the skin. This maximizes the effectiveness of the TQ in stopping bleeding and minimizes the amount of healthy tissue that might be impacted by a TQ unnecessarily placed too high on the limb.

Reassess any tourniquets that were applied in CUF for effectiveness. These tourniquets are rapidly applied and may have been placed “high and tight” (for example, high on the leg when the actual site of bleeding is near the ankle), and this will need to be addressed by medical personnel as they respond.

Remember: DO NOT put tourniquets over the knee, elbow, holster, or cargo pocket containing bulky items, as the tourniquet will be inadequate.



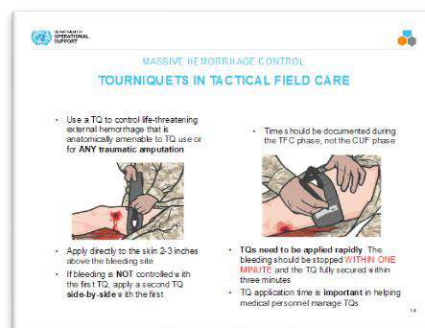
SLIDE 15 – TOURNIQUETS IN TACTICAL FIELD CARE

Tourniquets applied during TFC should be **deliberate tourniquets**. They are anatomically amenable to a UN TCCC approved tourniquet.

If bleeding is **not controlled** with the first tourniquet, apply a second tourniquet side-by-side with the first, which is further away from the wound.

Remember: Bleeding should be **stopped** within **1 minute** and the tourniquet was fully **secured** within **3 minutes**.

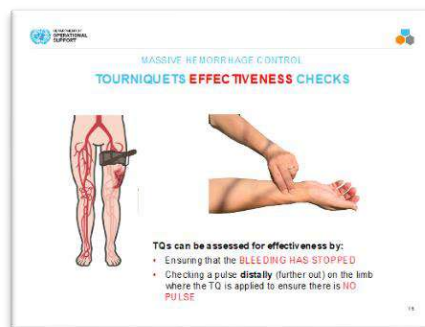
The time the tourniquet was placed should be documented on the tourniquet itself and on the **Casualty Card** in TFC (not during CUF). This is important for medical personnel as the casualty is moved to higher echelons of care.



SLIDE 16 – TOURNIQUET EFFECTIVENESS CHECKS

Check for circulation below the tourniquet by feeling for **distal pulse** (a pulse below the tourniquet).

If bleeding continues or you detect a distal pulse, **tighten the existing tourniquet** further or apply a second tourniquet next to the first.



SLIDE 17 – TWO-HANDED WINDLASS TOURNIQUET APPLICATION IN TFC (VIDEO)

Play video(s)

1. C-A-T buddy looped
2. C-A-T buddy routed



SLIDE 18 – TOURNIQUET PITFALLS/MISTAKES

1. The longer you wait to apply a tourniquet the more blood the casualty loses.
2. If you do not pull all the slack out, you will not be able to tighten the tourniquet effectively.
3. Tourniquets should be tight and **will hurt a lot** when applied properly.
4. If one tourniquet is not effective, apply a second. This may be necessary in casualties with large extremities.
5. When in doubt, apply a tourniquet. However, the need for a tourniquet should be reassessed as soon as possible.
6. In CUF, a tourniquet is placed 'high & tight' but in TFC the tourniquet should be placed 2-3 inches above the wound.
7. **DO NOT loosen!**
8. Leave the tourniquet in place even if loosened by medical personnel. You **DO NOT** want to have rebleeding occur and not have a tourniquet available.
9. **DO NOT** put tourniquets over joints...they **DO NOT** work over joints. If the wound is directly below a joint, place the tourniquet 2-3 inches above the joint.



SLIDE 19 – IMPROVISED TOURNIQUETS

Remember: DO NOT use an improvised tourniquet except as an **absolute last resort** when there is no **other option** to control life-threatening bleeding. If no tourniquet is available, pack the wound and use direct pressure. Improvised tourniquets can cause damage to skin if they are too narrow (less than 2 inches), they may loosen, and may not completely control bleeding. Improvised tourniquets that are 2 inches wide may be more successful in controlling bleeding.



Continue to check the tourniquet, as improvised tourniquets are prone to loosening due to (but not limited to) casualty movement, shift fluid, and quality of improvised material.

SLIDE 20 – SKILL STATION

At this time, we will break into skill stations to practice the following skills:

- Two-Handed Windlass Tourniquet Application in TFC



SLIDE 21 – HEMOSTATIC DRESSING

Familiarize yourself with the items in your BFAK.

A BFAK contains one hemostatic dressing and one dry sterile gauze.

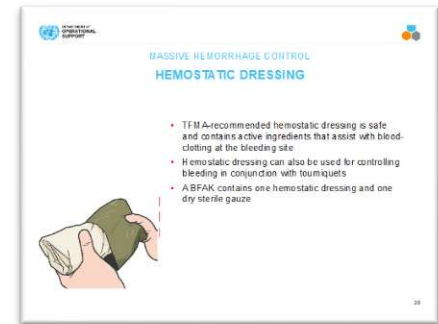
UN TCCC-recommended hemostatic dressings are safe and contain active ingredients that assist with blood clotting at the bleeding site.

Dressings include:

- **Combat Gauze®**, a 4-yard-long roll of gauze about 3 inches wide, used to control hemorrhage. The material has a chemical in it that causes a clot to form when it comes into contact with blood. This action, along with packing it into a bleeding wound and applying manual pressure, forms a clot and stops the bleeding.
- **Celox gauze**, with Celox granules bonded to its surface. Celox granules are Chitosan-based products that absorb fluid from blood, swell, and form a binding gel. The adherent gel plug seals the wound.
- **ChitoGauze**, a Chitosin-based hemostatic dressing that binds red and platelets on the dressing's surface, which provides clotting at the point of bleeding.

Note: Although Chitosin is a shellfish derivative, it will **NOT** cause an allergic reaction in casualties with a shellfish allergy.

Note: When packing larger wounds, more than one hemostatic dressing and/or gauze may be needed to control bleeding. If bleeding has not stopped, remove prior hemostatic packing material and repack with a new hemostatic dressing, if available. Apply additional gauze and pressure (for at least 3 minutes) until bleeding has stopped. Watch for rebleeding.

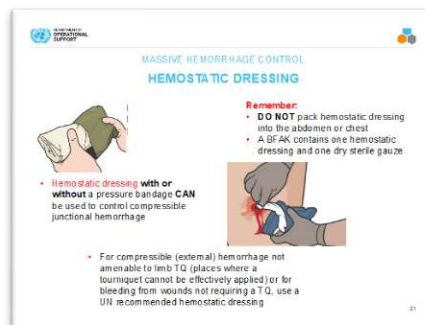


SLIDE 22 – HEMOSTATIC DRESSING (CONT.)

While hemostatic dressings should be packed into wounds of the limbs, when the source of bleeding is too high on limb for tourniquet application such as **neck**, **armpit**, and **groin**, they should **NOT** be packed into the **abdomen** or **chest**.

For compressible (external) hemorrhage **not amenable to limb tourniquet**, places where a tourniquet cannot be effectively applied like **neck**, **armpit**, and **groin** areas, use a UN TCCC-recommended hemostatic dressing.

Even with the active hemostatic agents in hemostatic dressings, direct pressure **must be applied** for at least 3 minutes.



SLIDE 23 – WOUND PACKING

DO NOT blindly pack a wound.

Make an effort to locate the source of bleeding and immediately apply direct pressure while retrieving gauze.

While packing a wound with gauze, maintain **constant**, direct pressure at the source of bleeding within 90 seconds. Once the dressing is applied, hold direct pressure on the gauze over the wound for **at least 3 minutes**. Then, carefully observe for blood continuing to flow from under the gauze to determine if bleeding has been controlled. Once you are sure the bleeding has stopped, apply a pressure bandage over the hemostatic dressing.

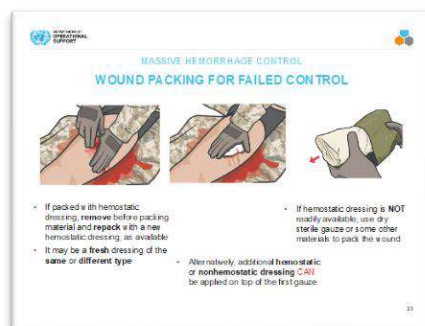


SLIDE 24 – WOUND REPACKING FOR FAILED CONTROL

If bleeding has not been stopped, **remove the hemostatic dressing/packing material**. Immediately, repack with a new hemostatic dressing, if available. 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.

Alternatively, additional hemostatic or non-hemostatic dressings can be applied on top of the first dressing. Apply additional gauze and pressure **for at least 3 minutes**, until bleeding has stopped. Watch for rebleeding.

NOTE: When packing larger wounds, more than one hemostatic dressing and/or gauze may be needed to control bleeding.

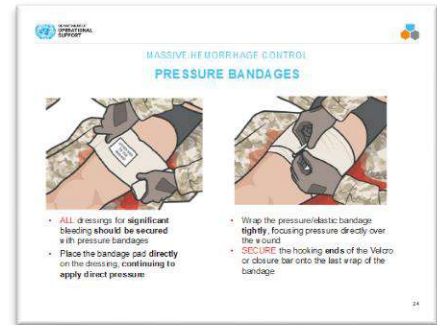


SLIDE 25 – PRESSURE BANDAGES

Once bleeding has been controlled with a hemostatic dressing/packing material you must maintain pressure on the wound.

Place the pressure dressing directly on top of the hemostatic dressing/packing material and wrap around the limb, ensuring you cover all the wound and gauze previously applied.

Be sure to secure the pressure dressing tail either by hooks or with a knot. Tape both to ensure they do not come loose.



SLIDE 26 – PRESSURE BANDAGE ASSESSMENT

1. Pressure bandages should not have a tourniquet effect.
2. If there is no pulse below the pressure bandage, it has been applied too tightly and will need to be loosened and retied.
3. Another sign the pressure bandage has been applied too tightly is the color of the skin will have a bluish tint, the skin may be **cool to touch** or the casualty will complain of **numbness** in the extremity below the bandage.



Remember: REASSESS any and all bandages after the casualty has been moved.

SLIDE 27 – MASSIVE HEMORRHAGE CONTROL PRESSURE BANDAGE (VIDEO)

Play video

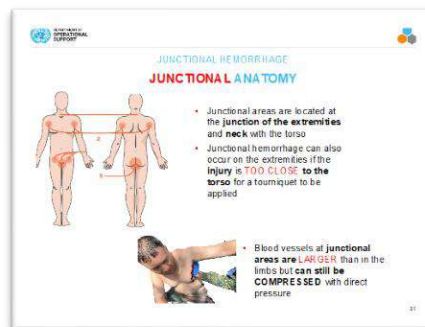


SLIDE 28 – JUNCTIONAL ANATOMY

This is a key concept for the FMA learner to understand.

Areas **NOT** amenable to extremity tourniquets are neck, axilla (arm pit), groin, and perineal. These areas are known as '**JUNCTIONAL**' areas and are difficult to stop bleeding even though the vessels are larger than in the extremities.

****Have the students locate the junctional areas on each other.**



SLIDE 29 – NECK JUNCTIONAL HEMORRHAGE CONTROL

Carefully pack the wound with hemostatic dressing using your fingers to ensure that the gauze is packed in all parts of the wound.

The wound should be packed sufficiently to ensure that the **gauze extends 2-3 inches above skin surface**. Maintain direct pressure continuously **for 3 minutes**, and maintain pressure throughout the application of the dressing. Apply a pressure dressing on top of the gauze.

Wrap the tail under the armpit of the non-injured side, continue to wrap around the arm on the injured side. Finally, the last wrap should be tied to the tails of the bandage on the neck for pressure.

NOTE: If the bandage has a pressure bar, pull the bandage tight, and reverse it back over the top of the pressure bar forcing it down onto the pad.



SLIDE 30 – NECK JUNCTIONAL HEMORRHAGE CONTROL (VIDEO)

Play video



SLIDE 31 – AXILLARY JUNCTIONAL HEMORRHAGE CONTROL

If there is a suspected ‘axillary’ wound, compressible (external) hemorrhage **not amenable to limb tourniquet**:

1. Expose the wound to assess it (Remove only the gear you need to).
2. Make an effort to locate the source of bleeding and immediately apply direct pressure while retrieving gauze.
3. Carefully pack the wound with hemostatic dressing using your fingers to ensure that the gauze is packed in all parts of the wound. **DO NOT blindly pack a wound.**
4. While packing a wound with gauze, maintain **constant**, direct pressure at the source of bleeding within 90 seconds. The wound should be packed sufficiently to ensure that the **gauze extends 2-3 inches above skin surface.**
5. Once the dressing is applied, hold direct pressure on the gauze over the wound for **at least 3 minutes.**
6. Then, carefully observe for blood continuing to flow from under the gauze to determine if bleeding has been controlled.
7. Once you are sure the bleeding has stopped, apply a pressure bandage over the hemostatic dressing and wrap the long end around the injured shoulder twice ensuring the gauze underneath is completely covered, next wrap the elastic bandage across, back and under the opposite armpit, anchoring around the opposite shoulder in a “figure 8” pattern.
8. Finally, secure the bandage. This will depend on the type of bandage used (either a closure bar or tie tails) and wrap tape a minimum of 16 times.
9. Swath the upper arm on the injured side to the side of the chest to add pressure to the dressing.



SLIDE 32 – AXILLARY JUNCTIONAL HEMORRHAGE CONTROL (VIDEO)

Play video

1. SAM Junctional Tourniquet



SLIDE 33 – JUNCTIONAL HEMORRHAGE CONTROL WITH A PRESSURE DELIVERY DEVICE (PDD)

A **Pressure Delivery Device** may be needed to apply additional and targeted pressure to control inguinal/groin hemorrhage.

For groin injuries packed with hemostatic dressings, use an improvised junctional PDD to secure the dressing.

A PDD is made using improvised materials, such as a shoe/boot, full water bottle, or canteen, and applies additional pressure to the wound after it has been packed.

The PDD is placed in the inguinal gutter while continuously maintaining pressure to the dressing.

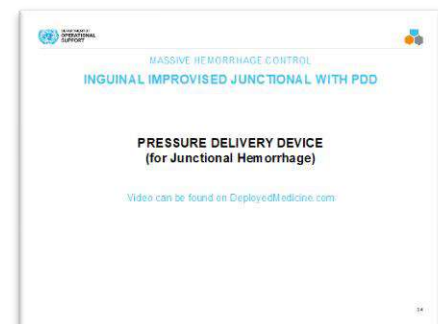
The PDD is then secured with a tourniquet, which is wrapped over the hips with the windlass or ratchet placed directly over the improvised device and tightened to add additional pressure. You may need to put two tourniquets together when improvising a PDD.

Remember: These are larger blood vessels requiring more pressure (and targeted pressure) than can be applied with a pressure dressing alone.



SLIDE 34 – INGUINAL JUNCTIONAL HEMORRHAGE CONTROL WITH IMPROVISED PRESSURE DELIVERY DEVICE (VIDEO)

Play video



SLIDE 35 – SKILL STATION

At this time, we will break into skill stations to practice the following skills:

1. Wound Packing with Hemostatic dressing and Pressure Bandage
2. Neck Junctional Hemorrhage Control
3. Axillary (Armpit) Junctional Hemorrhage Control
4. Inguinal (Groin) Hemorrhage Control with Improvised Junctional Pressure Delivery Device (PDD)



SLIDE 36 – SUMMARY

UN TCCC is broken up into four roles of care.

We covered four Cognitive ELOs, and four Performance ELOs that taught you how to control massive hemorrhage control in TFC.

REMEMBER, Massive bleeding is your #1 priority in treating casualties.

Some of the tools you have available to you are

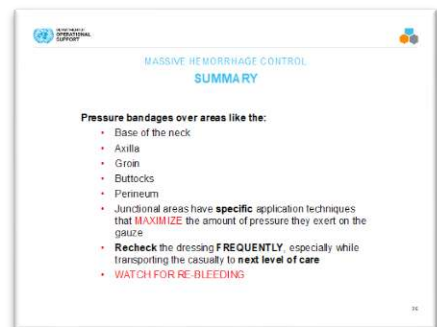
1) direct pressure, 2) gauze/other dressings, 3) UN TCCC-recommended tourniquets, 4) Pressure Delivery Devices, and 5) hemostatic dressing, and pressure bandages.

You now know the difference between a deliberate and hasty tourniquet and where to apply them and avoid the common pitfalls/mistakes. You have learned that an ‘improvised tourniquet’ should **ONLY** be used as a **LAST** resort...they **DO NOT** work.

Everyone should have had the chance to apply both a ‘windlass’ tourniquet. What did you learn while applying these tourniquets? We covered the proper technique in packing ‘hemostatic dressing’, applying direct pressure, and proper application of a pressure bandage in all anatomic locations.

What do you do if the hemostatic dressing you applied has rebleeding? We learned there are certain areas that are **NOT** amendable to limb tourniquets. Where are these areas located?

Everyone should have had a chance to practice 1) wound packing with hemostatic dressing and pressure bandage, 2) Neck junctional hemorrhage control, 3) axillary (armpit) junctional hemorrhage control, and 4) inguinal (groin) hemorrhage control with improvised junctional pressure delivery device (PDD).

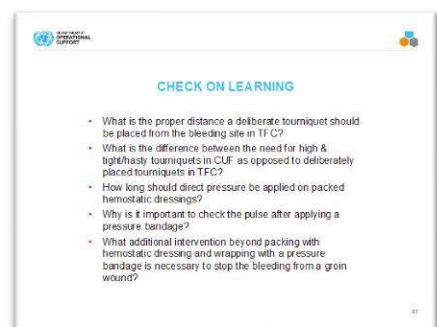


SLIDE 37 – CHECK ON LEARNING

Ask questions of the learners, referring to key concepts from the module.

Now for a check on learning.

1. What is the proper distance a deliberate tourniquet should be placed from the bleeding Site in TFC?
 - 2 to 3 inches above the bleeding site
2. Highlight the difference between the need for high & tight (hasty) tourniquets needed in CUF as opposed to deliberately placed tourniquets in Tactical Field Care.



- A high & tight (hasty) tourniquet is placed above the clothing as high as possible on the extremity. A deliberate TQ is applied after the wound has been exposed, 2–3 inches above the bleeding site.
 - High & tight (hasty) TQs are applied during CUF, and deliberate TQs are applied during TFC.
3. How long should direct pressure be applied onto packed hemostatic dressings?
 - 2 minutes
 4. Why is it important to check the pulse after applying a pressure bandage?
 - If the bandage is too tight, it could block circulation and the bandage should be loosened.
 5. What additional intervention beyond packing with hemostatic dressing and wrapping with a pressure bandage is needed to stop the bleeding from a groin wound?
 - PDD is needed to secure the dressing.

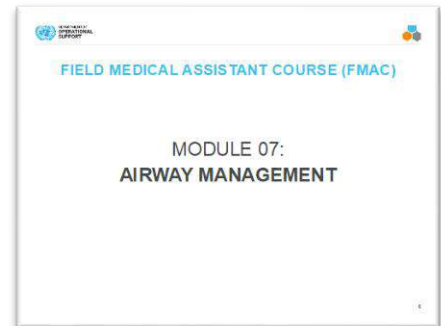
SLIDE 38 – QUESTIONS



MODULE 07

AIRWAY MANAGEMENT IN TFC

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

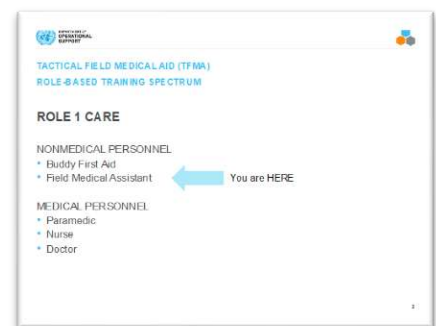
UN Tactical Combat Casualty Care is broken up into two roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



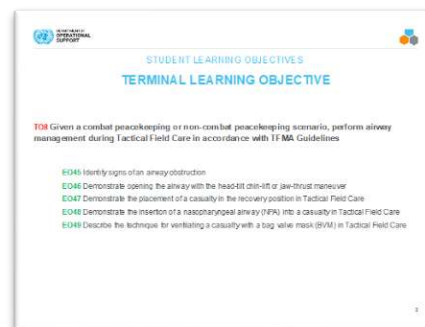
SLIDE 3 – TLO/ELO

The UN TCCC-FMA course is built on a foundation of learning objectives. These objectives layout the basic structure of the course and describe the knowledge and skills you are expected to acquire by the end of the course.

The module has one Terminal Learning Objective, or TLO. The TLO is supported by a series of Enabling Learning Objectives, or ELOs.

1. Demonstrating opening the airway with the head-tilt chin-lift or jaw-thrust maneuver
2. Demonstrating placing a casualty in the recovery position in Tactical Field Care
3. Demonstrating inserting a nasopharyngeal airway (NPA) into a casualty in Tactical Field Care
4. Describing the technique for ventilating a casualty with a bag valve mask (BVM) in Tactical Field Care

The critical aspects are to identify signs of life-threatening airway obstruction and the importance of prompt intervention and to demonstrate the appropriate interventions to address airway obstruction in accordance with the UN TCCC guidelines.



SLIDE 4 – MARCH PAWS

Airway management is the “A” in the MARCH PAWS sequence.



SLIDE 5 – AIRWAY MANAGEMENT IN TFC

Remember: If a casualty is conscious and can speak normally, there is no airway obstruction.

Airway obstruction on the battlefield is often due to maxillofacial trauma (trauma to the face and jaw).

Unconscious casualties can also lose their airway when the muscles of their tongue relax, causing the tongue to block the airway by sliding to the back of the mouth and covering the opening to the windpipe.

Airway obstruction on the battlefield is often easily corrected with simple maneuvers.



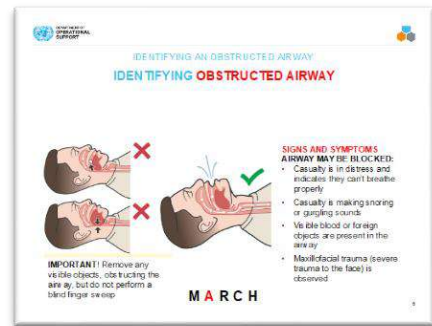
SLIDE 6 – IDENTIFYING OBSTRUCTED AIRWAY

Airway obstruction on the battlefield is often due to maxillofacial trauma, which may include disrupted airway anatomy and/or bleeding into the airway.

Casualty may indicate that they are in distress and/or make snoring or gurgling sounds.

If you see something in the casualty's mouth (such as foreign material, loose teeth, dentures, facial bone, or vomitus) that could block their airway, use your fingers to perform a sweep to remove the material as quickly as possible.

Do not perform a blind finger sweep if no foreign body is seen in the casualty's mouth.



SLIDE 7 – IN A CASUALTY WITHOUT A FOREIGN BODY AIRWAY OBSTRUCTION, YOU CAN PERFORM THE FOLLOWING MANEUVERS

Unconscious casualties can also lose their airway, as the muscles of their tongue may have relaxed, causing the tongue to block the airway by sliding to the back of the mouth and covering the opening to the windpipe.

Using the head tilt/chin-lift or jaw-thrust maneuver to move the tongue away from the windpipe and open the airway may allow the casualty to resume breathing on their own.

If you suspect that the casualty has suffered a neck or spinal injury, use the jaw-thrust method. If a casualty cannot maintain an open airway once opened, a second responder may be needed to assist in maintaining an open airway.



SLIDE 8 – HEAD-TILT / CHIN-LIFT AND JAW-THRUST MANEUVER (VIDEO)

Play video.

Inspect mouth for injuries, burns, or foreign items.

Do not perform a blind sweep if a foreign body is not visualized.



SLIDE 9 – SKILL STATION

At this time we will break into skill stations to practice the following skills:

- Head-tilt/chin-lift and jaw-thrust maneuver



SLIDE 10 – MANAGING THE AIRWAY

If the casualty is breathing on their own but unconscious or semiconscious, and there is no airway obstruction, further airway management is best achieved with a nasopharyngeal airway (NPA).

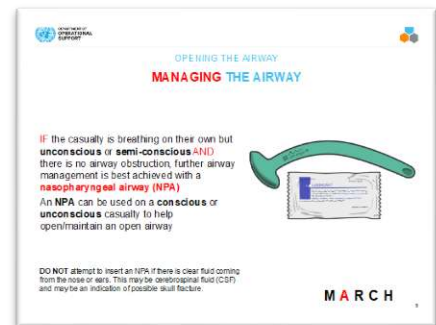
An NPA can help an unconscious or conscious casualty maintain an airway if they are breathing on their own.

Also known as a “Nose Hose” or “Nasal Trumpet,” an NPA is well tolerated by conscious and unconscious casualties and is unlikely to stimulate their gag reflex.

An NPA provides an open (patent) airway and helps to keep the tongue from falling to the back of the mouth and blocking the airway, even if an unconscious casualty’s tongue relaxes and partially covers their normal airway.

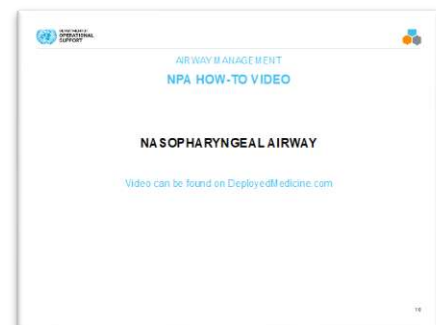
Do not use an NPA if there is clear fluid coming from the ears or nose. This may be cerebrospinal fluid (CSF), an indication of a possible skull fracture.

The NPA should be inserted into the nostril. If unable to insert into one nostril, insert into the other nostril. Ensure lubrication is used.



SLIDE 11 – NPA INSERTION (VIDEO)

Play video.

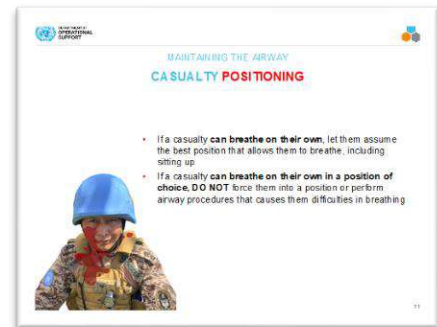


SLIDE 12 – CASUALTY POSITIONING

Place unconscious casualties in the recovery position after ensuring their airway is open and completing any necessary treatments.

The recovery position allows blood and mucus to drain out of the casualty's nose and mouth and not to drain back into the airway.

The recovery position also helps to protect against inhaling vomit if the casualty throws up.



SLIDE 13 – MAINTAINING THE AIRWAY/RECOVERY POSITION

If a casualty can breathe on their own, let them assume the best position (position of comfort) that allows them to breath, including sitting up.



SLIDE 14 – CASUALTY UNABLE TO BREATHE ON THEIR OWN

If a casualty is **not breathing on their own**, notify a combat medic as soon as possible.

The medic will need to assist the casualty in breathing with a bag valve mask device.

Medical personnel may ask the FMA to assist in using the BVM.



SLIDE 15 – BAG VALVE MASK (BVM) (VIDEO)

Play video.

If respirations are noted to be reduced, provide ventilator support with BVM.

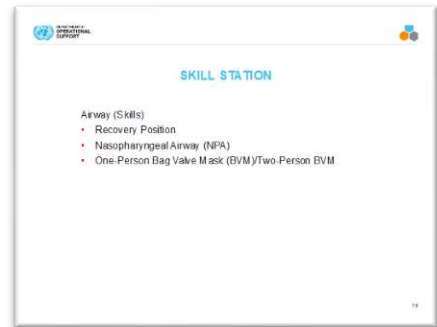
Medical personnel may ask you to assist when using a BVM.



SLIDE 16 – AIRWAY SKILLS STATION

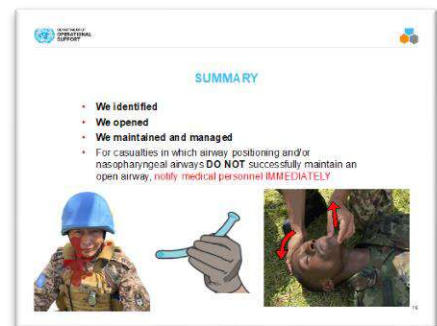
At this time we will break into skill stations to practice the following skills:

- Recovery Position
- Nasopharyngeal Airway (NPA)
- One-Person Bag Valve Mask (BVM)/Two-Person BVM



SLIDE 17 – SUMMARY

Prompt identification of airway obstruction and treatment are critical and can be accomplished, in most cases, with simple maneuvers/interventions by a FMA in the TFC phase of care.

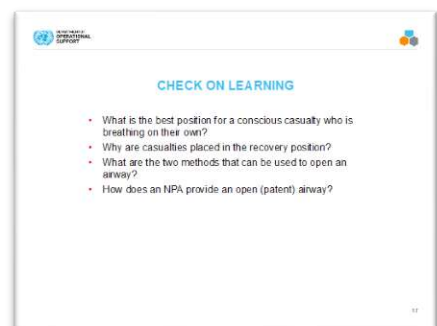


SLIDE 18 – CHECK ON LEARNING

Ask questions of the learners, referring to key concepts from the module.

Now for a check on learning.

1. What is the best position for a conscious casualty who is breathing on their own?
 - A comfortable position of choice that allows them to breathe, including sitting up.
2. Why are casualties placed in the recovery position?
 - The recovery position allows blood and mucus to drain out of the casualty's nose and mouth and not to drain back into the airway. This position also helps to protect against inhaling vomit if the casualty throws up.
3. What are the two methods that can be used to open an airway?
 - Head-tilt/chin-lift method
 - Jaw-thrust method
4. How does an NPA provide an open (patent) airway?
 - A nasopharyngeal airway provides an open (patent) airway, helping to keep the tongue from falling to the back of the mouth and blocking the airway even if an unconscious casualty's tongue relaxes and partially covers their normal airway.



SLIDE 19 – QUESTIONS



MODULE 08

RESPIRATION ASSESSMENT AND MANAGEMENT IN TFC

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

UN Tactical Combat Casualty Care is broken up into two roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

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Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



SLIDE 3 – TLO/ELO

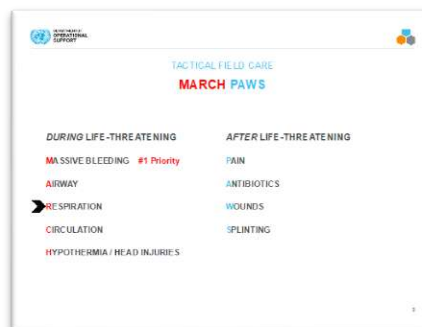
The TCCC-CLS course is built on a foundation of learning objectives. These objectives lay out the basic structure of the course and describe the knowledge and skills you are expected to acquire by the end of the course.

The module has one Terminal Learning Objective, or TLO. The TLO is supported by a series of Enabling Learning Objectives, or ELOs.



SLIDE 4 – MARCH PAWS

Respiration assessment is the “R” in the MARCH PAWS sequence.



SLIDE 5 – RESPIRATION OVERVIEW (VIDEO)

Play video

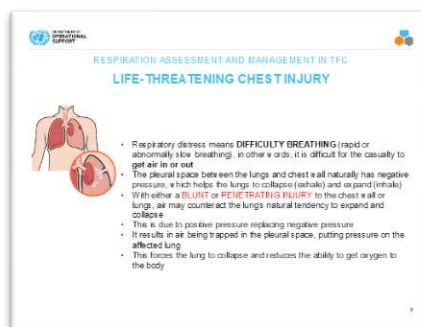


SLIDE 6 – LIFE-THREATENING CHEST INJURY

Respiratory distress means difficulty breathing.

The casualty is struggling to get air in or out or their breathing is ineffective.

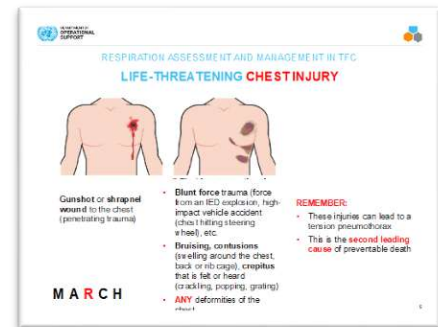
This can result from blunt or penetrating injury.



SLIDE 7 – LIFE-THREATENING CHEST INJURY

While it may be easy to see a gunshot wound or shrapnel wound to the chest, it is important to evaluate casualties for additional injuries, such as bruising, swelling, or other deformities of the chest not normally seen without removing the clothing.

These injuries may be signs of future life-threatening respiration issues.



SLIDE 8 – IDENTIFYING TENSION PNEUMOTHORAX

Tension pneumothorax is caused by significant torso (chest) trauma or a blast injury resulting in severe and progressive respiratory distress.



SLIDE 9 – IDENTIFYING SIGNS AND SYMPTOMS OF OPEN PNEUMOTHORAX IN TFC

With an open pneumothorax, also called a sucking chest wound, air enters the pleural space around the lung through a wound in the chest wall.

The elastic lung deflates and pulls away from the chest wall. On inspiration, the air now enters the chest THROUGH THE HOLE instead of INTO THE LUNGS through the normal airways of the mouth and nose. As a result, the affected lung cannot be fully re-inflated by inhalation.

It usually takes a hole in the chest the **size of a nickel or bigger** for a sucking chest wound to occur.

Not all chest wounds are sucking chest wounds; some do not penetrate as deeply as the lung cavity.



SLIDE 10 and SLIDE 11 – VENTED AND NONVENTED CHEST SEALS

Get to know the supplies within your BFAK and UNTP. Vented chest seals are preferred.

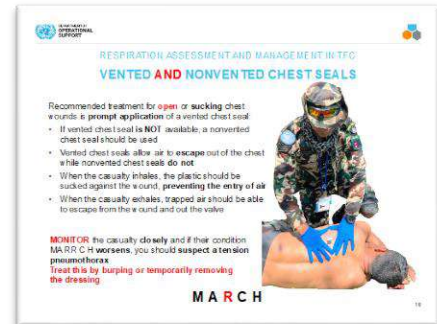
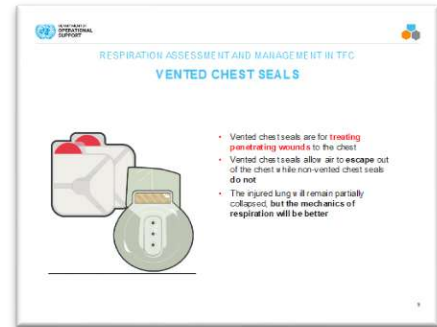
Penetrating chest wounds (open or sucking chest wounds) are treated by applying a chest seal.

Once a wound has been occluded with a chest seal, air can no longer enter (or exit) the pleural space through the wound in the chest wall.

The injured lung will remain partially collapsed, but the mechanics of respiration will be better.

Continue to monitor the casualty after treatment with a chest seal. If the casualty condition worsens, a tension pneumothorax should be suspected.

Burping or removing the dressing may help; otherwise, a needle decompression of the chest may be needed.



SLIDE 12 – POSITIONING AFTER TREATMENT

If the casualty is unconscious, place the casualty in the recovery position. If conscious, allow the casualty to adopt the sitting position if that makes breathing more comfortable.



SLIDE 13 – TREATMENT OF OPEN PNEUMOTHORAX WITH CHEST SEAL (VIDEO)

Play video



SLIDE 14 – SKILL STATION

At this time we will break into skill stations to practice the following skills:

- Chest seal



SLIDE 15 – TENSION PNEUMOTHORAX IN TACTICAL FIELD CARE

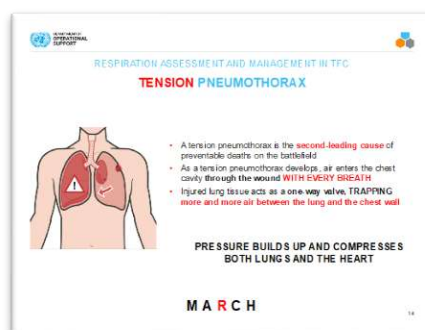
As a **tension pneumothorax** develops, air enters the chest cavity through the wound with every inspiration, but doesn't leave with expiration and is trapped.

Every breath adds more air to the air space inside the rib cage and outside the lung, and the pressure inside the chest builds up.

Injured lung tissue acts as a one-way valve, trapping more and more air between the lung and the chest wall.

Pressure builds up and can potentially compress both lungs and the heart.

Both lung function and heart function are impaired with a tension pneumothorax, causing respiratory distress and shock. The elevated air pressure **OUTSIDE** the collapsed lung in a tension pneumothorax can impair the function of both lungs and the heart by preventing them from expanding normally. This CAN kill the casualty.



SLIDE 16 – CONSIDER TENSION PNEUMOTHORAX IN TACTICAL FIELD CARE

Signs of tension pneumothorax include early and late signs.

The early signs to look for are:

1. Increased difficulty breathing
2. Rapid or shallow breathing (like being out of breath and not able to take a full breath)
1. Anxiety
3. Agitation
4. Apprehension
5. Decreased level of consciousness or unconsciousness



The late signs may not be displayed or may be displayed only when the casualty's condition has worsened. **Late signs** that indicate progression of tension pneumothorax include neck veins protruding (distended); tracheal deviation (a shift of the windpipe to the right or left).

These signs may be difficult to assess in a combat situation. You must **be alert** to the possibility of tension pneumothorax whenever a casualty has a penetrating or other chest wound. Therefore, the sole criterion for suspecting a tension pneumothorax is a chest wound with increasing respiratory difficulty.

It is important to evaluate casualties during TFC for early and late signs of tension pneumothorax. Like bleeding control, tension pneumothorax is treatable. Left untreated, a tension pneumothorax can cause severe respiratory distress, shock, and death.

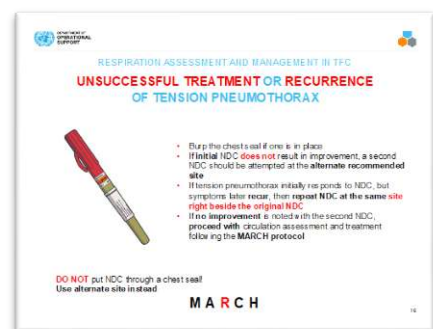
The **treatment** is to let the air trapped under pressure escape by inserting a needle into the chest.

After initial treatment by FMA, both types of chest injuries (sucking chest wounds and tension pneumothorax) will require advanced evaluation by medical personnel and evacuation.

SLIDE 17 – UNSUCCESSFUL TREATMENT OR RECURRENCE OF TENSION PNEUMOTHORAX

If initial treatment of tension pneumothorax with NDC is unsuccessful or if symptoms recur after successful treatment, a second NDC should be attempted.

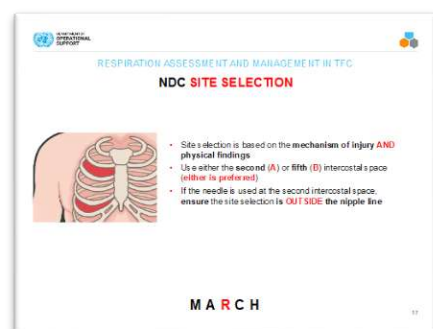
If no improvement is noted after the second NDC, proceed with circulation assessment and treatment following the MARCH protocol.



SLIDE 18 – TREATMENT OF TENSION PNEUMOTHORAX

The treatment is to let the air trapped under pressure escape by inserting a needle into the chest. This is called Needle Decompression of the Chest (NDC).

The device used for NDC is a catheter-over-needle device that is found in the BFAK.

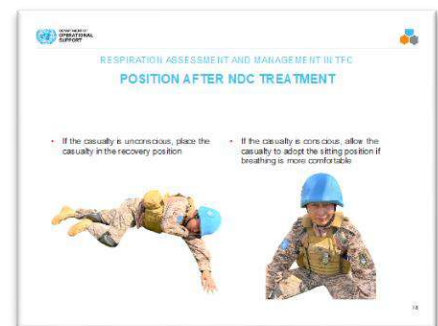


NDC can be performed at either the space between the second and third ribs on the front of the chest (away from the middle of the chest outside the nipple line to avoid the heart) or on the side of the chest between the fifth and sixth ribs.

- Use a 14-gauge or 10-gauge 3.5" needle catheter
- Two options for NDC sites
 - 2nd intercostal space on mid-clavicular line
 - 5th intercostal space on the anterior axillary line
- Watch needle placement to avoid the heart and arteries
- Clean the area
- Place the needle perpendicular to body
- Hold in place for 5–10 seconds before removing needle and leaving catheter
- Document all interventions on the Casualty Card

SLIDE 19 – POSITIONING AFTER TREATMENT

If the casualty is unconscious, place in the recovery position. If conscious, allow the casualty to adopt the sitting position if that makes breathing more comfortable.



SLIDE 20 – NEEDLE DECOMPRESSION OF THE CHEST (NDC) (VIDEO)

Play video



SLIDE 21 – SKILL STATION

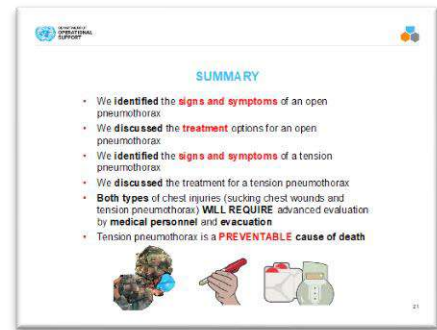
At this time, we will break into skill stations to practice the following skills:

- Needle Decompression of Chest



SLIDE 22 – SUMMARY

In this module, we discussed respiration assessment and management in TFC. We identified the signs and symptoms of an open pneumothorax and of a tension pneumothorax, as well as how to treat both. We emphasized that tension pneumothorax is a preventable cause of death. We also reinforced the need for medical personnel to provide advanced evaluation of these types of chest injuries, along with the need for evacuation.

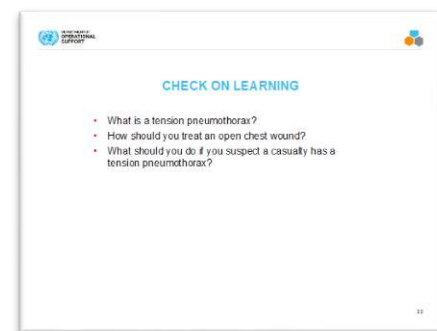


SLIDE 23 – CHECK ON LEARNING

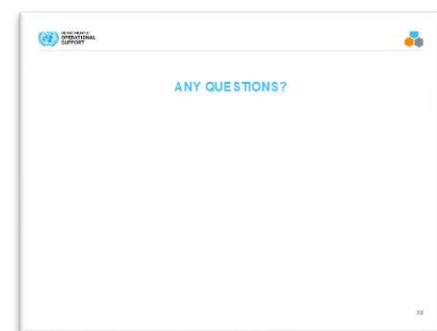
Ask questions of the learners, referring to key concepts from the module.

Now for a check on learning.

1. What is a tension pneumothorax?
 - As a tension pneumothorax develops, air enters the chest cavity through the wound with every inspiration, but doesn't leave with expiration and is trapped, so every breath adds more air to the air space inside the rib cage and outside the lung, and the pressure inside the chest builds up and causes the lung to collapse. Injured lung tissue acts as a one-way valve, trapping more and more air between the lung and the chest wall. Pressure builds up and compresses both lungs and the heart.
2. How should you treat an open chest wound?
 - Treat open chest wounds by applying a vented chest seal completely over the wound during expiration.
3. What should you do if you suspect a casualty has a tension pneumothorax?
 - If a chest seal is in place, burp the seal. If there is no improvement after burping the seal perform a needle decompression of the chest.



SLIDE 24 – QUESTIONS



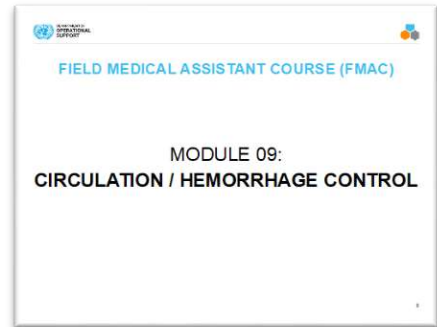
MODULE 09

HEMORRHAGE CONTROL IN TFC

SLIDE 1 – TITLE SLIDE

Good morning/afternoon, my name is (insert here) and I will be your lead trainer for Module 9: Circulation/Hemorrhage control in the Tactical Field Care (TFC) environment.

Before we get started are there any questions?



SLIDE 2 – UN TCCC ROLES

UN Tactical Combat Casualty Care is broken up into **two** roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

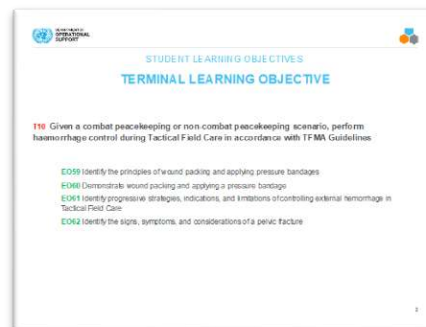
Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



SLIDE 3 – TLO/ELO

The UN TCCC-FMA course is built on a foundation of learning objectives. These objectives lay out the basic structure of the course and describe the knowledge and skills you are expected to acquire by the end of the course.

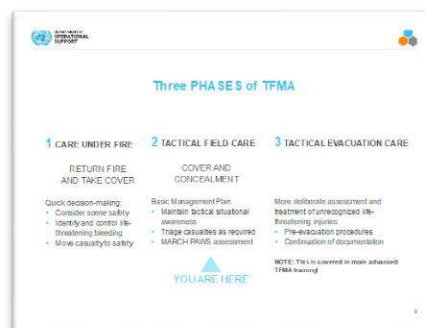
The module has **one Terminal Learning Objective**, or TLO. The TLO is supported by a series of Enabling Learning Objectives, or ELOs.



SLIDE 4 – THREE PHASES OF UN TCCC

UN TCCC is organized into Phases of Care that start at the point of injury. These phases are relevant to combat and noncombat trauma scenarios:

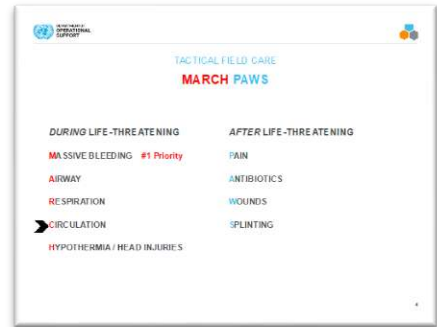
1. **Care Under Fire or Care Under Threat** is the aid rendered at the trauma scene while there is still an active threat. Available medical equipment is limited to that carried by an individual or found in a nearby first aid kit. Massive bleeding is the only medical priority that requires your attention during this phase, as you are actively dealing with an ongoing threat in a potentially chaotic and dangerous situation.
2. **Tactical Field Care** is the care provided once the threat has been neutralized and/or the scene is safe or the casualty has moved/been moved out of the immediate threat situation. During this phase a rapid casualty assessment should be performed. Bleeding control should be assessed/reassessed, and airway/breathing issues addressed. Other injuries such as burns, fractures, eye trauma, and head injuries should now be identified and treated. Medical equipment is still limited. Time to arrival of medical personnel or evacuation may vary considerably, depending on the tactical situation, etc.
3. **Tactical Evacuation Care** is the care rendered during and once the casualty has been moved by an aircraft, vehicle, or other mode of transportation for evacuation to a higher level of care. Additional medical personnel and equipment are typically available in this phase of casualty care.



Remember: The goal of UN TCCC and the role of the FMA are to rapidly assess casualties to identify and treat potentially life-threatening injuries and keep the casualty alive long enough to reach a higher level of medical care.

SLIDE 5 – MARCH PAWS

Hemorrhage control assessment and management in the Tactical Field Care phase falls under the “C,” for Circulation, in the MARCH PAWS sequence.



SLIDE 6 – HEMORRHAGE CONTROL IN TFC (VIDEO)

Play video.

1. Unrecognized hemorrhage
2. Junctional areas
3. UN TCCC-recommended tourniquets
4. UN TCCC-recommended hemostatic dressings
5. Improvised junctional tourniquet
6. Pulse(s) checked
7. Reassessment
8. Pelvic fracture(s)
9. Findings reported



SLIDE 7 – PELVIC FRACTURES

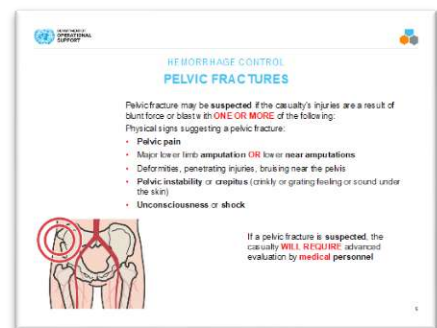
In TFC, another key injury for which the casualty should be assessed is a **pelvic fracture**.

Pelvic fractures can be a cause of massive internal bleeding and impact circulation, which is the “C” in the MARCH PAWS sequence.

A pelvic fracture may be suspected if the casualty's injuries are a result of blunt force or blast with **ONE OR MORE** of the following physical signs suggesting a pelvic fracture:

- Pelvic pain
- Major lower-limb amputation OR lower-limb near amputations
- Pelvic deformities, penetrating injuries, or bruising near the pelvis
- Pelvic instability or crepitus, which is a crinkly or grating feeling or sound under the skin
- Unconsciousness or shock

If a pelvic fracture is suspected, the casualty **WILL REQUIRE** advanced evaluation by medical personnel, and you should notify medical personnel of the potential for a pelvic fracture as soon as possible.



SLIDE 8 – REASSESSMENT

Hemorrhage control in the TFC phase takes place after massive bleeding control that occurs in the Care Under Fire phase.

It is possible that it **did not occur**, and this may be the first opportunity to address massive bleeding as well, so there is significant urgency.

The first step is to reassess ALL PRIOR hemorrhage control interventions for effectiveness. Check all TQs and hemostatic dressings that were applied and ensure they are tight and effective.



SLIDE 9 – STRATEGIES AND LIMITATIONS

Early control of severe hemorrhage is critical. In the TFC phase, UN TCCC-recommended TQs should be applied directly to the skin **2–3 inches above the bleeding site**. This is different from the high & tight placement over clothing that may have occurred in the CUF phase.

Always remember that the casualty's hemorrhage control interventions must be **FREQUENTLY REASSESSED** to ensure continued hemorrhage control.

This includes reassessments at frequent time intervals and any time the casualty is moved or the casualty's status changes. Watch the casualty for signs of shock.

Your actions will help ensure bleeding control.

DO NOT EVER APPLY IT AND FORGET IT!



SLIDE 10 – WOUND PACKING and PRESSURE DRESSING

The proper technique for applying a hemostatic dressing with a pressure bandage is to first **identify the exact source of bleeding** and pack the wound.

You should pack the wound with the hemostatic dressing while maintaining **CONSTANT** direct pressure at the source of bleeding.

After the wound is packed, you must hold direct pressure to the packing over the wound for **3 minutes**. **Do not** check for bleeding control during these 3 minutes.

After 3 minutes, if bleeding is controlled, you should secure the wound packing with a pressure bandage. If the bandage has a pressure bar, pull the bandage **TIGHT**, and reverse it back over the top of the pressure bar, forcing it down onto the pad. If there is no pressure bar, make



sure to keep tension while wrapping the elastic bandage, which is best done with short pulls and tugs of the bandage as you wrap it around the wound.

SLIDE 11 – WOUND PACKING

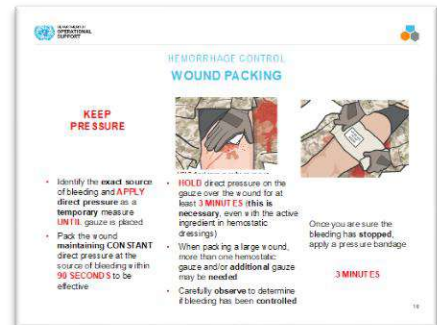
While packing a wound, maintain constant, direct pressure at the source of bleeding.

Once the dressing is applied, hold direct pressure on the gauze over the wound for at least 3 minutes. Then, carefully observe for blood continuing to flow from under the gauze to determine if bleeding has been controlled.

Once you are sure the bleeding has stopped, apply a pressure bandage over the hemostatic dressing.

If you placed a tourniquet above a casualty's elbow, for instance, you should expect to find no pulse at the wrist below that elbow if the tourniquet was properly applied, and there should be no continued bleeding from the wound.

Make sure there is no continued bleeding from any prior hemostatic dressings that were placed.



SLIDE 12 – PRESSURE BANDAGE REASSESSMENT

It is also necessary to reassess any previously applied pressure bandages.

First, make sure there is no continued bleeding from the wound.

Then, check for circulation **BELOW** the pressure bandage by feeling for the distal pulse (a pulse below the bandage).

If the skin **BELOW** the pressure bandage becomes cool to the touch, bluish, or numb, or if the pulse below the pressure dressing is no longer present, the pressure bandage may be too tight.

If circulation is **BLOCKED** or STOPPED, loosen and retie the bandage. Dressings and bandages should be reassessed and checked routinely and EVERY TIME a casualty is moved.



SLIDE 13 – IF PRESSURE BANDAGE IS INEFFECTIVE

You must make sure the pressure bandage is still effective and bleeding is still controlled.

If the pressure bandage or hemostatic dressing is ineffective, **APPLY A TOURNIQUET 2–3 inches above the bleeding site**, if possible.

If unable to place a tourniquet and the pressure bandage is ineffective AND/OR blood soaked, **REPLACE** the pressure dressing with a new hemostatic dressing.

Pack the wound with the hemostatic dressing, maintaining **CONSTANT** direct pressure at the source of bleeding within **90 SECONDS**, to be effective.



SLIDE 14 – PRESSURE BANDAGE (VIDEO)

Play video

1. Properly apply pressure dressing
2. Use the sterile side on top of hemostatic dressing
3. Wrap properly and secure
4. Assess circulation
5. Document treatment



SLIDE 15 – SKILL STATION

At this time, we will break into skill stations to practice the following skills:

- Wound Packing with Hemostatic Dressing and Pressure Bandage

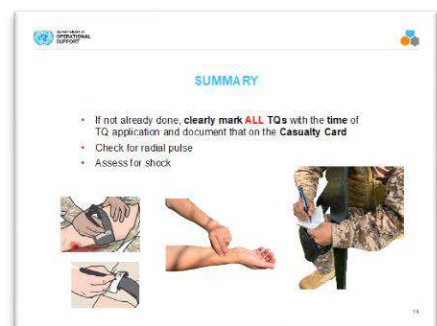


SLIDE 16 – SUMMARY

You should now understand the need to reassess all hemorrhage control interventions that may have been applied previously.

You should also understand the need to replace or reapply any ineffective hemorrhage control intervention.

All of these interventions are designed to eliminate further bleeding and prevent the casualty from going into shock or worsening shock.



You should frequently reassess for shock by checking for a radial pulse and other signs of inadequate hemorrhage control.

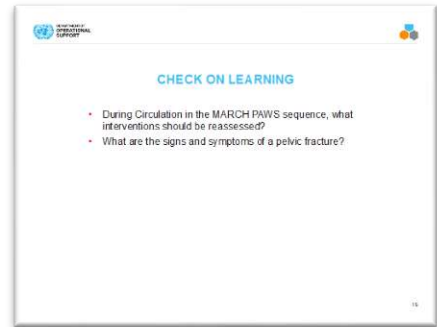
Of course, if not already done, clearly mark ALL tourniquets with the time of tourniquet application and document all findings and treatment on the Casualty Card.

SLIDE 17 – CHECK ON LEARNING

Ask questions of the learners, referring to key concepts from the module.

Now for a check on learning.

1. During Circulation in the MARCH PAWS sequence, what interventions should be reassessed?
 - Previously applied tourniquets and hemostatic dressings
2. What are the signs and symptoms of a pelvic fracture?
 - Severe blunt force or blast injury with one or more of the following:
 - Pelvic pain
 - Major lower-limb amputation OR lower near amputations
 - Deformities, penetrating injuries, bruising near the pelvis
 - Pelvic instability or crepitus (crinkly, or grating feeling or sound under the skin)
 - Unconsciousness or shock



SLIDE 18 – QUESTIONS



MODULE 10

SHOCK RECOGNITION

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

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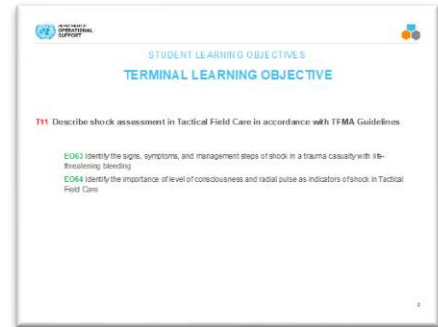
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SLIDE 3 – TLO/ELO

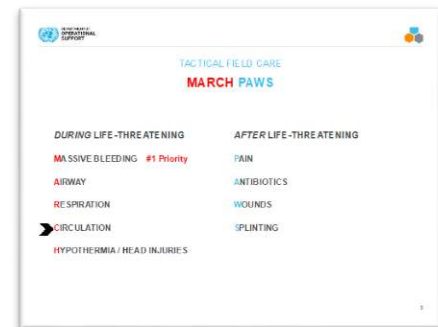
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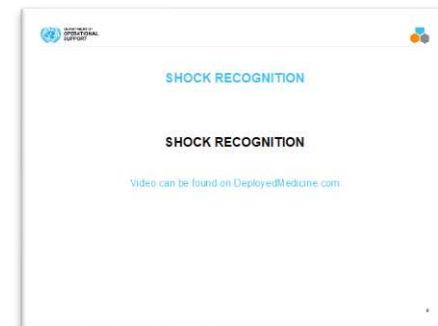
SLIDE 4 – MARCH PAWS

Shock recognition is related to circulation, which is the “C,” for Circulation, in the MARCH PAWS sequence.



SLIDE 5 – SHOCK RECOGNITION VIDEO

Play video.



SLIDE 6 – SHOCK

Shock is inadequate blood flow to body tissues. Inadequate blood volume inside the circulatory system results in inadequate oxygen delivery to the body's cells.

As cells cease to function, tissues cease to function, then organs cease to function, and eventually, the whole body will fail and **DEATH** follows.

REMEMBER: Shock will lead to the casualty's death if not quickly recognized and treated.



SLIDE 7 – SHOCK (CONT.)

Shock is caused by a decrease in the amount of blood volume circulating in the casualty's blood circulatory system.

Shock can have many causes:

- Low blood volume or hypovolemia, such as dehydration or blood loss
- Low blood pressure from massive infection
- Heart failure
- Neurologic damage

Shock is usually caused by severe bleeding, but it can also be caused by severe burns, such as second- and third-degree burns on 20 percent or more of the body surface.

On the battlefield, assume shock is from severe blood loss. This is also called hemorrhagic shock.

Remember: If uncontrolled, hemorrhagic shock can result in the casualty's **death**.



SLIDE 8 – GENERAL INDICATORS OF SHOCK

You need to know the signs of hemorrhagic shock on the battlefield:

- Mental confusion or altered mental status in the absence of a head injury
- Rapid or shallow breathing
- Sweaty, cool, clammy skin
- Pale/grey or blotchy blue skin as shock progresses
- Weak or absent radial pulse
- Nausea and/or vomiting
- Excessive thirst
- Previous severe bleeding



Make sure you frequently assess casualties during TFC for signs of shock. These symptoms can change and progress over time.

SLIDE 9 – GENERAL INDICATORS OF SHOCK (CONT.)

Shock has two important indicators. These are mental confusion and a weak or absent radial pulse.

If BOTH indicators exist, the casualty has lost a SIGNIFICANT amount of blood and is at risk of death.

As previously stated, shock will lead to the casualty's death if not quickly recognized and treated.



SLIDE 10 – GENERAL INDICATORS OF SHOCK (CONT.)

This table provides an overview of the effects of blood loss.

Up to 500cc of blood loss is well tolerated with often no effects except a possible increase in heart rate.

1,000cc of blood loss will usually produce an elevated heart rate greater than 100, but otherwise the casualty may appear normal. This amount of blood loss is not usually fatal.

1,500cc of blood loss may be associated with a change in mental status, a weak radial pulse greater than 10, and increased respirations. If there is no further blood loss, the casualty is still unlikely to die. 2,000cc of blood loss is accompanied by confusion and lethargy, a weak radial pulse often greater than 120, and a high respiratory rate greater than 35. This amount of blood loss is possibly fatal if not managed quickly.

2,500cc of blood loss will usually present with the casualty unconscious, with no radial pulse, a carotid pulse greater than 140, and respirations greater than 35. This amount of blood loss will be fatal without immediate and rapid intervention.

This table highlights why it is so important to quickly apply a tourniquet, once safe, during CUF and reassess and evaluate for additional bleeding sources during TFC.

CIRCULATION/SHOCK
GENERAL INDICATORS OF SHOCK

Blood Volume	Blood Loss	Signs/Symptoms	Effect/Outcome
4 liter bottles full, 1 bottle 1/2 empty	500cc	Respirations increased 10%	Usually no effects
4 liter bottles full, 1 empty	1000cc	Radial pulse >100 Breathing possibly normal	Unlikely to die from this amount of loss
3 1/2 bottles full, 1 1/2 empty	1500cc	Change in mental status Weak radial pulse >120 Increased respirations	Still unlikely to die
3 bottles full, 2 empty	2000cc	Confusion and lethargy Very weak radial pulse >120 High respiratory rate >35	Very possibly fatal if not managed
2 1/2 bottles full, 2 1/2 empty	2500cc	Unconscious No radial pulse, carotid pulse >140 Respirations >35	Fatal without immediate and rapid intervention

MARCH

SLIDE 11 – PREVENT SHOCK BY CONTROLLING BLEEDING

It is better to prevent shock with hemorrhage control than to treat it. Even if shock is already present, the most critical first step in treating it is to control the bleeding.

Reassess all bleeding control measures to ensure they are still effective. Ensure tourniquets and pressure dressings remain tight, as soon as possible. This is the most critical thing to accomplish in treating shock.

Internal bleeding from blunt trauma or penetrating trauma to the chest or abdomen may not be controllable, and continued bleeding from an internal source may cause shock to develop later, so continually reassess the casualty. If a casualty is not in shock, then they don't need treatment for shock, but should be watched carefully for the development of shock if they have been seriously injured.

DO NOT WAIT for signs and symptoms of shock to occur. Medical personnel will provide other treatments, but you can save them time if extremal bleeding is controlled.

CIRCULATION/SHOCK
PREVENT SHOCK BY CONTROLLING BLEEDING

#1- Reassess to confirm all bleeding control measures are still effective

Ensure TQs and pressure dressings remain tight

- Check radial pulse

It is better to prevent shock with hemorrhage control than to treat it

If shock is present, though, the most critical first step is to control the bleeding

Internal bleeding from chest or abdominal trauma may not be controllable, and shock may develop later, so continuously assess the casualty

Medical personnel will provide other treatments, but you can save them time if extremal bleeding is controlled

DO NOT WAIT for signs and symptoms of shock to occur

MARCH

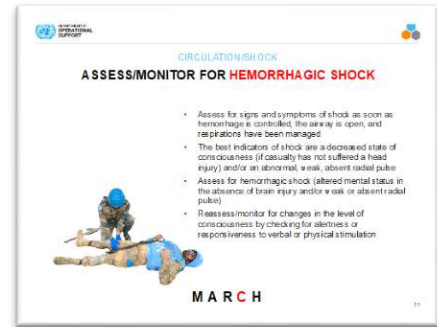
SLIDE 12 – ASSESS/MONITOR FOR HEMORRHAGIC SHOCK

Assess for signs and symptoms of shock as soon as hemorrhage is controlled, the airway is open, and respirations have been managed.

The best indicators of shock are a decreased state of consciousness, if the casualty has not suffered a head injury, and/or an abnormal, weak, absent radial pulse.

Assess for hemorrhagic shock, as noted by altered mental status in the absence of brain injury and/or weak or absent radial pulse.

Reassess/monitor for changes in the level of consciousness by checking for alertness or responsiveness to verbal or physical stimulation.



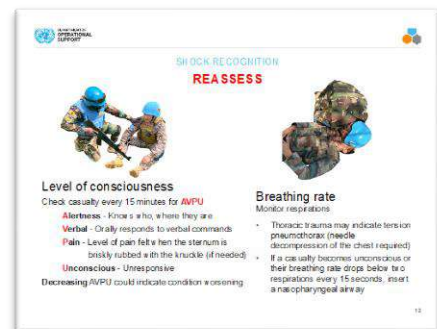
SLIDE 13 – REASSESS

Reassess the level of consciousness every 15 minutes using the AVPU scale.

Check whether they are Alert, have Verbal responses, respond only to Pain, or are Unconscious. A decreasing AVPU could indicate the casualty's condition is worsening.

Also, continue to reassess the breathing rate and monitor the casualty's respirations.

- Thoracic trauma may indicate a tension pneumothorax, which will require a needle
- decompression of the chest.
- If a casualty becomes unconscious or their breathing rate drops below two respirations every 15 seconds, insert a nasopharyngeal airway.



SLIDE 14 – SHOCK MANAGEMENT

It is a good idea to let those casualties who are not in shock, and who can swallow, to drink water or other fluids. Dehydration is common on the battlefield and is not good for casualties. Any casualty not in shock, but who has lost some blood, will benefit from oral rehydration.

Position the casualty in the recovery position with their head turned so fluids can drain from their mouth or in a position that allows them to breathe.

Evacuate the casualty if medical help is present or available. Reassess the casualty frequently for the onset of shock. Continually reassess and monitor!



SLIDE 15 – HYPOTHERMIA MANAGEMENT

Keep the casualty warm and prevent hypothermia. Even in very hot environments, a casualty suffering hemorrhagic shock from blood loss is at extreme risk for hypothermia.

Remember the active and passive means to warm and prevent hypothermia. Place a poncho or blanket under the casualty to protect them from the cold temperature or dampness of the ground. Cover the casualty with a survival blanket or other available materials to keep them warm and dry.



SLIDE 16 – SUMMARY

In summary, you should now be able to define shock, identify the indicators of shock, discuss prevention measures for shock, and discuss the management of shock. You should also understand that hypothermia can be caused by shock and can make it worse.

Remember, the two most important indicators of shock are mental confusion in the absence of a head injury and a weak or absent radial pulse. If the casualty is in shock or develops shock, refer them to medical personnel and evacuate as soon as possible.

Always continue to reassess and communicate with your casualty.

Document all findings and treatments on the Casualty Card.



SLIDE 17 – CHECK ON LEARNING

Ask questions of the learners referring to key concepts from the module.

Now for a check on learning.

What is shock?

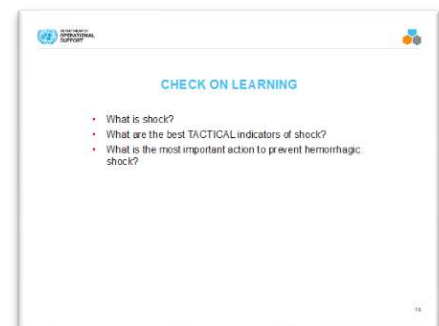
- Shock is inadequate blood flow and oxygen delivery to the body's cells, which leads to organ failure and death.

What are the best indicators of shock?

- Decreased state of consciousness (if casualty has not suffered a head injury) and/or an abnormal, weak, absent radial pulse.

What is the most important action to prevent hemorrhagic shock?

- Stop the bleeding



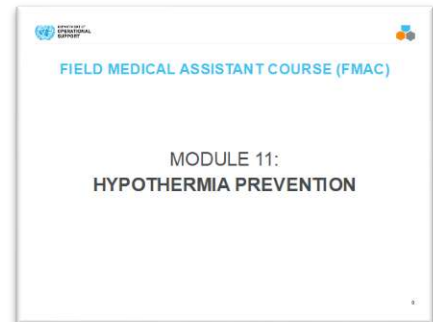
SLIDE 18 – QUESTIONS



MODULE 11

HYPOTHERMIA PREVENTION

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

UN Tactical Combat Casualty Care is broken up into **two** roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.

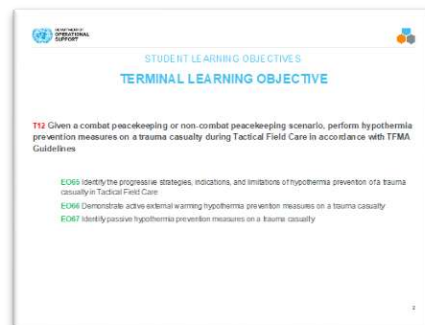


SLIDE 3 – TLO/ELO

The hypothermia module has two cognitive learning objectives and one performance learning objective. The cognitive learning objectives are to identify the progressive strategies, indications, and limitations of hypothermia prevention of a trauma casualty in Tactical Field Care, and to identify passive hypothermia prevention measures on a trauma casualty.

The performance learning objective is to demonstrate active external warming hypothermia prevention measures on a trauma casualty.

The critical aspects are to recognize that hypothermia will be a problem, know the possible steps to prevent and treat it, and then be able to perform the necessary skills to successfully prevent and/or treat a casualty who is hypothermic or who is at risk of hypothermia.



SLIDE 4 – MARCH PAWS

Hypothermia prevention and management is the “**H**” in the MARCH PAWS sequence, as are head injuries.

Remember, you are now in the Tactical Field Care phase of care, and so the focus has shifted from immediate life-threatening hemorrhage control while still under enemy fire in the Care Under Fire phase, to the reassessment of all previous interventions, followed by the prevention and treatment of other injuries and complications such as hypothermia.

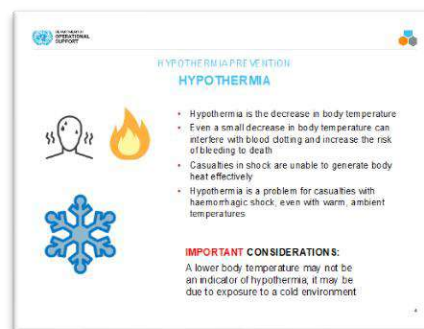


SLIDE 5 – HYPOTHERMIA

Hypothermia is the decrease in body temperature. Even a small decrease can interfere with blood clotting and increase the risk of bleeding to death.

Casualties in shock are unable to generate body heat effectively.

Hypothermia is a problem for casualties with hemorrhagic shock even with warm ambient temperatures, as hypothermia is not always a body temperature lower than normal due to exposure to a cold environment.



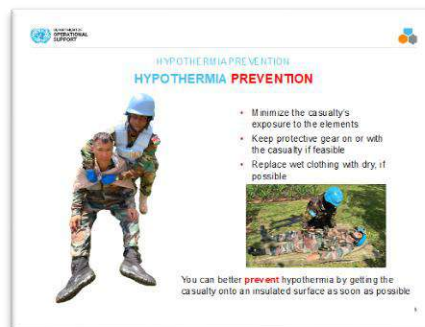
SLIDE 6 – HYPOTHERMIA PREVENTION

Hypothermia prevention will decrease the effects of heat loss and decrease deaths from uncontrolled hemorrhage. Prevention of hypothermia should start as soon as possible after wounding.

If hypothermia **is not prevented**, the potential exists that the casualty may bleed to death from an otherwise survivable wounding. Blood loss can lead to hypothermia, so you must control bleeding and prevent hypothermia through passive or active measures.

The sooner hypothermia is prevented, **the less impact** it will have on bleeding and shock.

Casualties in shock are unable to generate body heat effectively. It is important to minimize the casualty's exposure to the elements. Wet clothes and helicopter evacuations increase body heat loss, so replace wet clothing with dry if possible. Get the casualty onto an insulated surface as soon as possible. Keep in mind temperature changes throughout the day into the night, altitude, wind, etc.



SLIDE 7 – HYPOTHERMIA PREVENTION (CONT.)

Hypothermia is much easier to prevent than to treat! Begin hypothermia prevention as soon as possible. Decreased body temperature interferes with blood clotting and increases the risk of bleeding.

Blood loss can cause a significant drop in body temperature, even in hot weather.

You must be proactive, assume that every casualty will become hypothermic, and use all the techniques you will learn in this module to prevent it. If they are already hypothermic, then be even more aggressive and treat it as if the casualty's life depends on it.



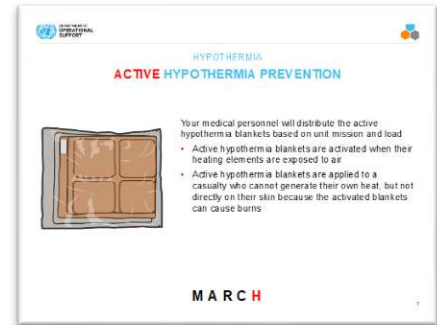
SLIDE 8 – ACTIVE HYPOTHERMIA BLANKETS

Your medical personnel will distribute the active hypothermia blankets based on unit mission and load.

Active hypothermia blankets are activated when their heating elements are exposed to air, and can produce temperatures reaching **40°C for up to 8 hours**.

Active hypothermia blankets are applied to a casualty who cannot generate their own heat, but not directly on their skin, because the activated blankets can cause burns.

Continue to reassess to determine if additional methods are needed to prevent or treat hypothermia.

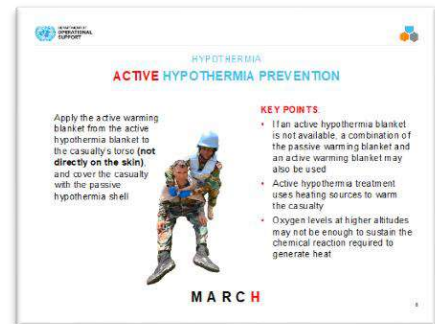


SLIDE 9 – ACTIVE HYPOTHERMIA MANAGEMENT

REMEMBER: Apply the active warming blanket from the active hypothermia materials to the casualty's torso, **not directly on the skin**, and cover the casualty with the passive hypothermia shell.

THE KEY POINTS ARE: 1) If an active hypothermia device is not available, a combination of the passive warming blanket and an active warming blanket may also be used. 2) Active hypothermia treatment uses heating sources such as the ready-heat blanket to warm the casualty. This requires a chemical reaction with oxygen, so at higher altitudes there may not be enough oxygen to sustain the chemical reaction required to generate heat.

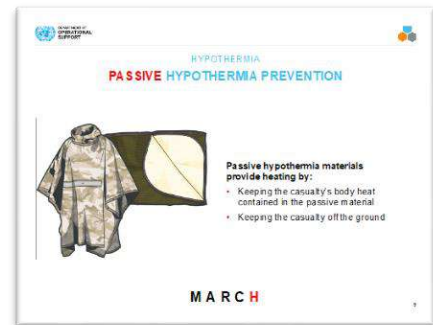
You must determine based on the environmental conditions whether your casualty needs both the outer shell and the heating blanket or whether it is sufficient to just keep them covered with the shell, because it is already hot outside.



SLIDE 10 – PASSIVE HYPOTHERMIA MATERIAL

Passive hypothermia blankets provide heating passively by keeping the casualty's body heat contained in the passive blanket, and keeping the casualty off the ground.

The heat reflective shell will help to retain the heat produced by the ready-heat blanket. It has an incorporated hood and Velcro closures down each side to allow exposure of an arm or a leg. Such exposure allows the medic to attend to IVs and TQs.

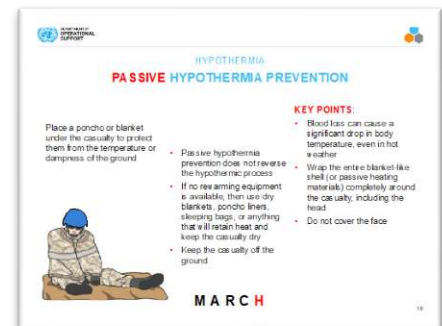


SLIDE 11 – PASSIVE HYPOTHERMIA MANAGEMENT

Passive hypothermia strategies will keep the casualty from getting colder, but essentially will not warm the casualty. Do not place the casualty on the cold/wet/damp ground; place a blanket or poncho underneath. **Passive hypothermia prevention WILL NOT reverse the hypothermic process.**

If no rewarming equipment is available, then use dry blankets, poncho liners, sleeping bags, or anything that will retain heat and keep the casualty dry, and keep the casualty off the ground.

Key points to remember are that blood loss can cause a significant drop in body temperature, even in hot weather. It is also important to wrap the entire blanket-like shell (or passive heating materials) completely around the casualty, including the head, but do not cover the face. Any exposed areas can lead to heat loss and worsening hypothermia.



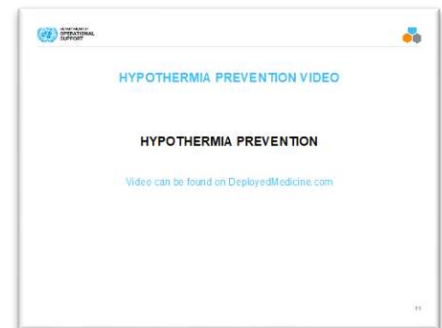
SLIDE 12 – HYPOTHERMIA PREVENTION (VIDEO)

Play video.

Remember, hypothermia is not just about keeping the casualty warm; it may also save their life.

You must minimize exposure to the elements by keeping their protective gear on and keep them dry and on an insulated surface.

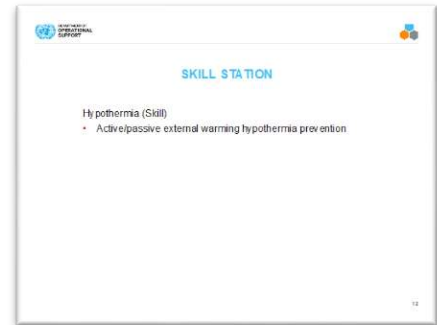
Use the ready-heat blanket and cover them with a heat-reflective shell if you have it. If you have nothing else, use anything that will retain heat and keep them dry.



SLIDE 13 – SKILL STATION

In the skills station we will practice the active and passive hypothermia prevention skills.

This will include the use of the passive hypothermia prevention with the blanket-like shell and the use of an active warming blanket. Alternatives will also be discussed and demonstrated in case active heating blankets are not available.



SLIDE 14 – SUMMARY

In summary, you should now be able to define hypothermia and discuss active and passive hypothermia prevention and management.

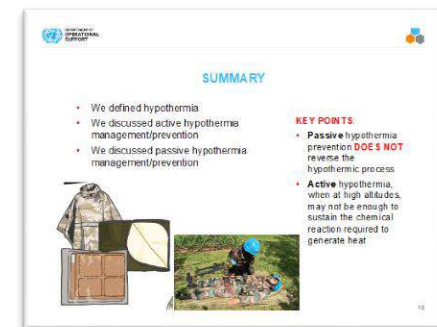
Passive hypothermia prevention includes using ponchos and keeping them off the ground, but it **DOES NOT** reverse the hypothermic process.

Active hypothermia, such as warming blankets, may still not be enough to sustain the chemical reaction required to generate heat when at high altitudes.

Hypothermia is not about it being cold outside, but about not letting the casualty get cold, as even a small decrease in body temperature can worsen bleeding and lead to death.

You will have to decide which active and passive warming measures to use depending on the situation. Warm environments might not require as much active warming as colder environments. The active blankets should not be placed directly on the skin as they can cause burns. Don't forget that transport, particularly in aircraft, can lessen the effectiveness of all the hypothermia measures.

Above all else, remember that hypothermia is easier to prevent than treat, so don't let your casualty get cold!

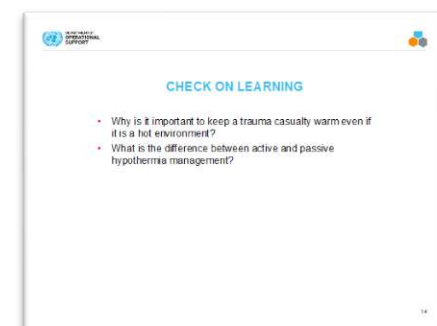


SLIDE 15 – CHECK ON LEARNING

Ask questions of the learners referring to key concepts from the module.

Now for a check on learning.

1. Why is it important to keep a trauma casualty warm even in a hot environment?
 - Even a small decrease in body temperature can interfere with blood clotting and increase the risk of bleeding to death.
 - Casualties in shock are unable to generate body heat effectively.
2. What is the difference between active and passive hypothermia management?
 - Active hypothermia treatment uses heating sources to warm the casualty.



SLIDE 16 – QUESTIONS



MODULE 12

HEAD INJURIES

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

UN Tactical Combat Casualty Care is broken up into **two** roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

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The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

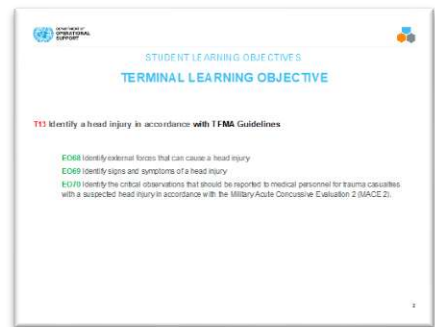
Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



SLIDE 3 – TLO/ELO

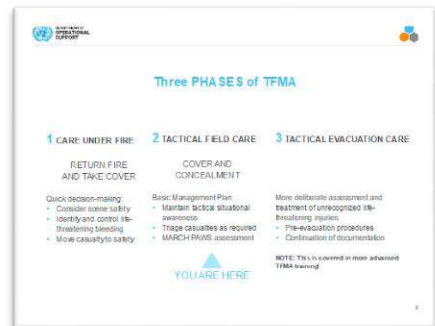
The head injuries model has **three cognitive learning objectives**. These learning objectives are to identify the external forces that can cause a head injury, identify the signs and symptoms of a head injury, and identify the critical observations that should be reported to medical personnel for trauma casualties with a suspected head injury, in accordance with the Military Acute Concussive Evaluation 2.

The critical aspects are to be able to recognize whether a head injury has possibly occurred, know what signs or symptoms to look for, and then collect key information that will help medical personnel evaluate and treat a casualty with a head injury.



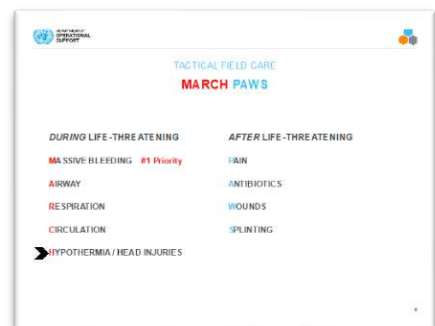
SLIDE 4 – THREE PHASES OF UN TCCC

Remember, you are now in the Tactical Field Care phase of care, and so the focus has shifted from immediate life-threatening hemorrhage control while still under enemy fire in the Care Under Fire phase, to the reassessment of all previous interventions, followed by the prevention and treatment of other injuries and complications such as head injuries.



SLIDE 5 – MARCH PAWS

Head injuries are the “**H**” in the MARCH PAWS sequence as head Injuries.



SLIDE 6 – POTENTIAL MECHANISMS OF HEAD INJURY

Head injury is trauma to the **SCALP, SKULL, and/or BRAIN**.

- Head injury can be caused by:
- Involvement in a vehicle blast event, collision, or rollover
- Presence within 50 METERS of a blast (inside or outside)
- A direct blow to the head or a witnessed loss of consciousness
- Exposure to more than one blast event. In these cases, the UN member's commander will direct a medical evaluation if deemed necessary.

Other external forces may also lead to head injuries.



SLIDE 7 – SIGNS AND SYMPTOMS OF HEAD INJURY

The IED checklist is an important tool for gathering information and identifying signs and symptoms of a head injury.

I stands for **Injury**, and refers to physical damage to the body or body part of a UN member.

E stands for **Evaluation**, and includes the acronym HEADS, which asks if the casualty has any of the following:

H – Headaches and/or vomiting?

E – Ear ringing?

A – Amnesia, altered consciousness, and/or loss of consciousness?

D – Double vision and/or dizziness?

S – Something feels wrong or is not right?

D stands for **Distance**, and asks whether the UN member was within 50 meters of the blast. It is also important to record the approximate distance from the blast.

IED Checklist		
Injury	Physical damage to the body or body part of a Service member?	Yes/No
Evaluation	H - Headaches and/or vomiting?	Yes/No
	E - Ear ringing?	Yes/No
	A - Amnesia, altered consciousness, and/or loss of consciousness?	Yes/No
	D - Double vision and/or dizziness?	Yes/No
	S - Something feels wrong or is not right?	Yes/No
Distance	Was the Service member within 50 meters of the blast? Record the distance from the blast.	Yes/No Not Applicable

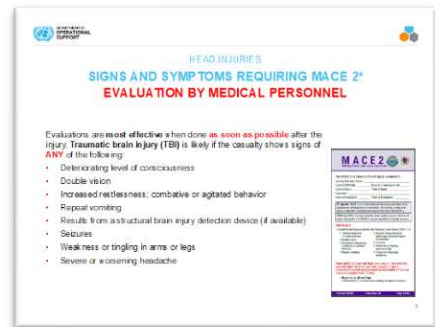
SLIDE 8 – SIGNS AND SYMPTOMS THAT REQUIRE MACE 2 EVALUATION BY MEDICAL PERSONNEL

It is important to identify the critical observations that should be reported to medical personnel for trauma casualties with a suspected head injury, in accordance with the Military Acute Concussive Evaluation 2 (MACE 2).

Evaluations are most effective when done as soon as possible after the injury. Traumatic brain injury (TBI) is likely if the casualty shows signs of **ANY** of the following:

- A deteriorating level of consciousness
- Double vision
- Increased restlessness; combative or agitated behavior
- Repeated vomiting
- Results from a structural brain injury detection device (if available)
- Seizures
- Weakness or tingling in the arms or legs
- Severe or worsening headache

If any of these signs or symptoms are present, report them immediately upon arrival of medical personnel.



SLIDE 9 – SUMMARY

In summary, you should now be able to define what constitutes a head injury, understand its mechanisms of injury, know how to use the IED checklist to identify the signs and symptoms of head injury, and be able to identify the critical observations that require immediate reporting to higher medical personnel.

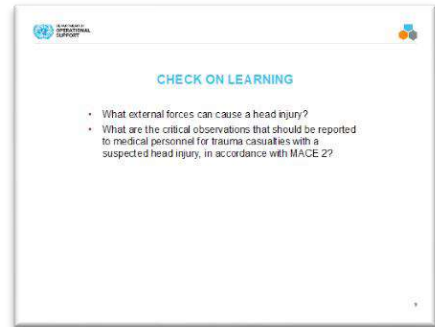


SLIDE 10 – CHECK ON LEARNING

Ask questions of the learners referring to key concepts from the module.

Now for a check on learning.

1. What external forces can cause a head injury?
 - Involvement in a vehicle blast event, collision, or rollover
 - Presence within 50 METERS of a blast (inside or outside)
 - A direct blow to the head or witnessed loss of consciousness
 - Exposure to more than one blast event (the UN member's commander will direct a medical evaluation)
2. What are the critical observations that should be reported to medical personnel for trauma casualties with a suspected head injury, in accordance with the Military Acute Concussive Evaluation 2 (MACE 2)?
 - Deteriorating level of consciousness
 - Double vision
 - Increased restlessness; combative or agitated behavior
 - Repeat vomiting
 - Results from a structural brain injury detection device (if available)
 - Seizures
 - Weakness or tingling in arms or legs
 - Severe or worsening headache



SLIDE 11 – QUESTIONS



MODULE 13

EYE INJURIES

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

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You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.

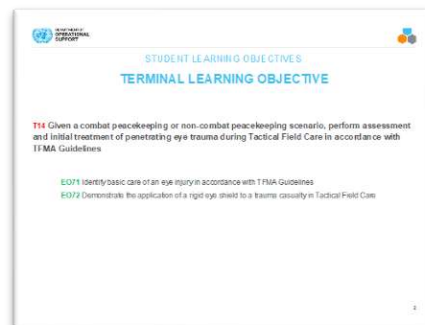


SLIDE 3 – TLO/ELO

The eye injury module has **one cognitive learning objective and one performance learning**.

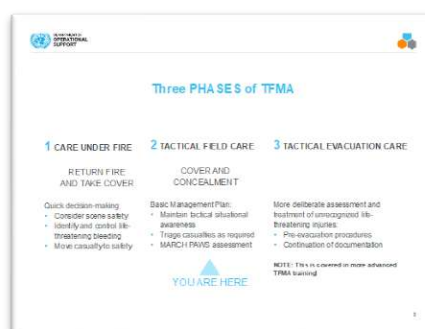
The cognitive learning objective is to identify the basic care of an eye injury, and the performance learning objective is to demonstrate the application of a rigid eye shield to a trauma casualty.

The critical aspects are to recognize eye injuries and the steps to treat them, and then to place a rigid eye shield on a trauma casualty.



SLIDE 4 – THREE PHASES OF UN TCCC

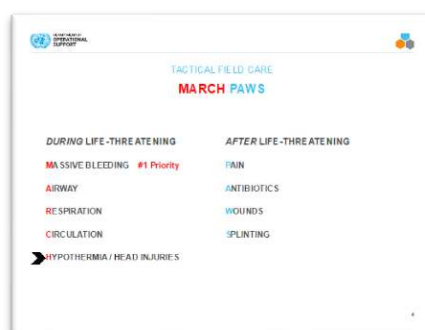
Remember, you are now in the Tactical Field Care phase of care, and so the focus has shifted from immediate life-threatening hemorrhage control while still under enemy fire in the Care Under Fire phase, to the reassessment of all previous interventions, followed by the prevention and treatment of other injuries and complications such as head and eye injuries.



SLIDE 5 – MARCH PAWS

Eye injuries are part of the “H” in the MARCH PAWS sequence, as they can be considered head injuries.

Remember, you are now in the Tactical Field Care phase of care, and so the focus has shifted from immediate life-threatening hemorrhage control while still under enemy fire in the Care Under Fire phase, to the reassessment of all previous interventions, followed by the prevention and treatment of other injuries and complications such as eye injuries.



SLIDE 6 – EYE INJURIES OVERVIEW (VIDEO)

Play video.

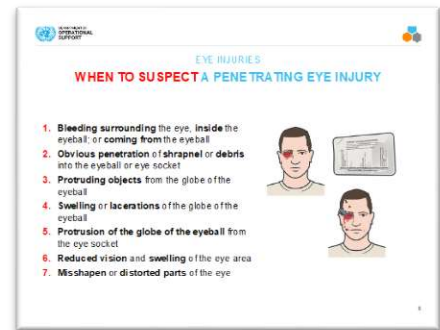


SLIDE 7 – WHEN TO SUSPECT A PENETRATING EYE INJURY

Eyesight is one of our most important senses. Damage to an eye can be irreversible if not treated correctly as early as possible.

The following signs should make you suspect a penetrating eye injury:

1. Bleeding surrounding the eye, inside the eyeball, or coming from the eyeball
2. Obvious penetration of shrapnel or debris into the eyeball or eye socket
3. Protruding objects from the globe of the eyeball
4. Swelling or lacerations of the globe of the eyeball
5. Protrusion of the globe of the eyeball from the eye socket
6. Reduced vision and swelling of the eye area
7. Misshapen or distorted parts of the eye from normal



SLIDE 8 – IF PENETRATING EYE INJURY IS NOTED OR SUSPECTED

If a penetrating eye injury is noted or suspected, three steps must be taken:

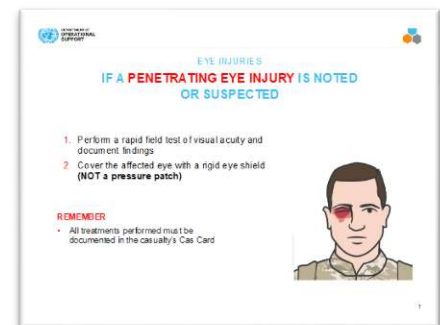
1. Perform a rapid field test of visual acuity and document findings

Rapid visual acuity testing includes the ability to read print, count fingers, identify hand motion, and sense light perception.

2. Cover the affected eye with a rigid eye shield, **NOT a pressure patch**

A pressure dressing could result in permanent loss of vision. Place a rigid eye shield on only one eye, unless both eyes are injured. Covering both eyes turns an otherwise ambulatory casualty into a litter casualty. Tactical eyewear is always a good way to prevent eye issues and can be used for protection if no eye shield is available.

Remember: Document all findings and treatments on the Casualty Card.



SLIDE 9 – PROTECTING THE EYE

Protect the eye with a SHIELD, not a patch.

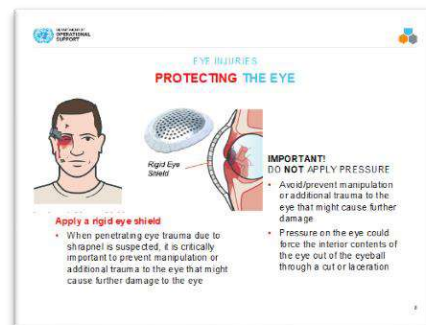
A rigid shield will protect the eye from pressure. Avoid/prevent manipulation or additional trauma to the eye that might cause further damage.

Pressure could force the interior contents of the eye to come out of the eyeball.

Pressure dressings are not part of the care of an eye injured in combat and may result in an avoidable permanent loss of vision.

For protruding or impaled objects extending past the eye shield, cut a hole in it to allow the object to fit through, and secure it in place.

If the eye shield cannot be applied around the impaled object, then use an improvised eye shield to avoid pressure on the eye.



SLIDE 10 – APPLYING THE RIGID EYE SHIELD

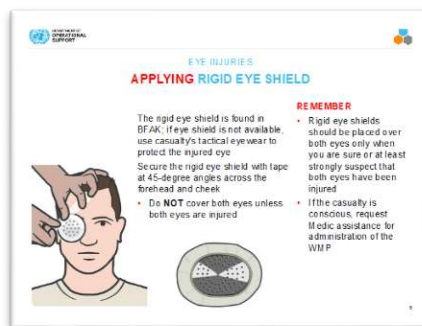
When penetrating eye trauma due to shrapnel is suspected, it is critically important to prevent manipulation or additional trauma to the eye that might cause further damage to the eye.

This is accomplished by taping a rigid shield over the eye. **DO NOT apply pressure to the eye.**

Secure the rigid eye shield with tape at **45-degree** angles across the forehead and cheek.

Rigid eye shields should be placed over both eyes only when you are sure or at least strongly suspect that both eyes have been injured. When only one eye has been injured, do not place a shield over the uninjured eye to prevent eye movement. Movement has not been shown to worsen the outcome for the injured eye. Blindness, resulting from placing eye shields over both eyes unnecessarily, makes an otherwise ambulatory casualty a litter casualty and is psychologically stressful.

If no rigid eye shield is available, **tactical eyewear** may be used to protect the eyes from further trauma.



SLIDE 11 – DOCUMENT TREATMENT

Document all assessments and treatment on the Casualty Card.
Be sure to include any medications administered and the time administered.



SLIDE 12 – APPLYING THE RIGID EYE SHIELD

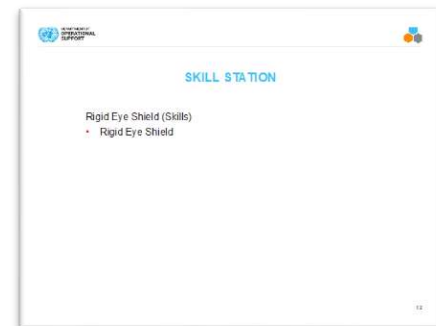
Play video.



SLIDE 13 – SKILL STATION

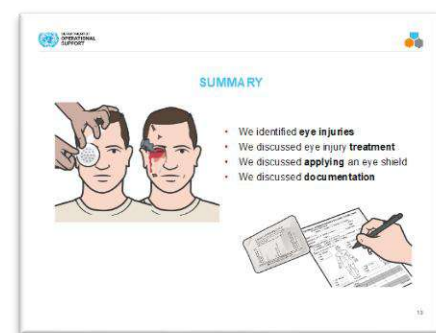
At this time we will break into skill stations to practice the following skills:

- Rigid Eye Shield



SLIDE 14 – SUMMARY

In this module, we discussed basic care of an eye injury. We addressed how to recognize an eye injury, steps to treat it, application of a rigid eye shield to a trauma casualty, and proper documentation.

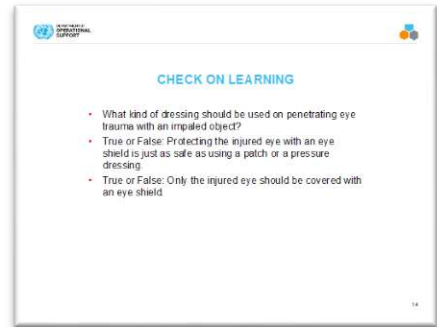


SLIDE 15 – CHECK ON LEARNING

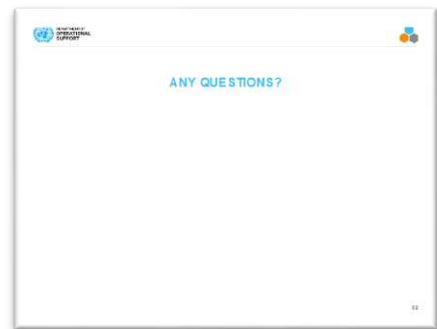
Ask questions of the learners referring to key concepts from the module.

Now for a check on learning.

1. What kind of dressing should be used on penetrating eye trauma with an impaled object?
 - For protruding/impaled objects extending past the eye shield, cut a hole in it to allow the object to fit through. If you cannot cut the eye shield, place a bulky dressing around the penetrating object.
2. True or False: Protecting the injured eye with an eye shield is just as safe as using a patch or a pressure dressing?
 - False
3. True or False: Only the injured eye should be covered with an eye shield?
 - True



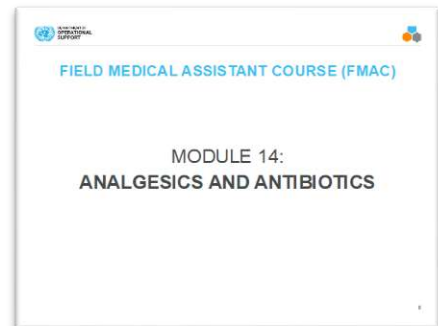
SLIDE 16 – QUESTIONS



MODULE 14

ANALGESIA AND ANTIBIOTIC ADMINISTRATION

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

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The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

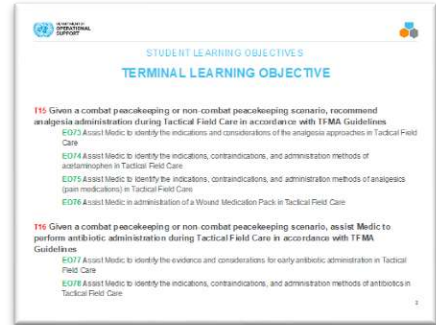
Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



SLIDE 3 – TLO/ELO

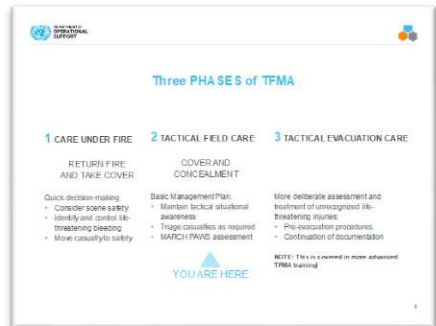
The Wound Medication Pack (WMP) module has four cognitive learning objectives and one performance learning objective. The cognitive learning objectives are to identify the indications, contraindications, and administration methods of acetaminophen, analgesics, and antibiotics in Tactical Field Care (TFC), the indications and considerations of the analgesia approaches, and the evidence and considerations for early antibiotic administration. The performance learning objective is to demonstrate the administration of a combat wound medication pack to a trauma casualty.

The critical aspects are to recognize when analgesia or antibiotic administration is indicated, whether the casualty can take the WMP, when to administer the WMP, and then to demonstrate how the WMP is administered to a trauma casualty.



SLIDE 4 – THREE PHASES OF UN TCCC

Remember, you are now in the TFC phase of care, so the focus has shifted from immediate life-threatening hemorrhage control while still under enemy fire in the Care Under Fire (CUF) phase, to the reassessment of all previous interventions, followed by the prevention and treatment of other injuries and complications, including the use of the combat wound medication pack, if indicated.



SLIDE 5 – MARCH PAWS

Wound Medication Pack is both the “P” (pain) and the “A” (antibiotics) in the MARCH PAWS sequence.

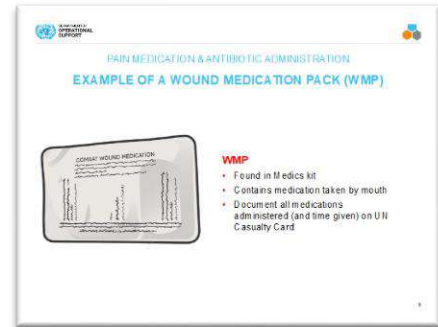


SLIDE 6 – EXAMPLE OF A WOUND MEDICATION PACK (WMP)

The WMP is a prepackaged pill pack containing UN TCCC recommend medications for use in casualty care. The WMP can be found in the Medic's Kit.

Contains medication taken by mouth

Document all medications administered (and time given) on UN Casualty Card



SLIDE 7 – WMP PAIN MANAGEMENT CONSIDERATIONS

The WMP contains the following components:

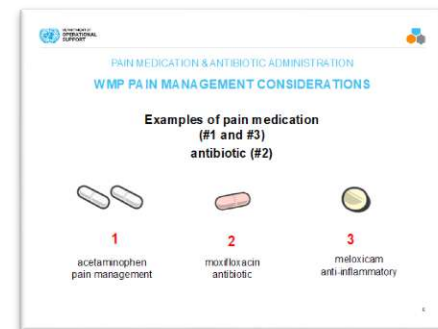
1. Two 650mg caplets of acetaminophen (total 1,300mg) in extended-release form
2. One 400mg tablet of moxifloxacin
3. One 15mg tablet of meloxicam

Each of the three medications in these dosages is contained in a blister pack.

Note: The popular nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen, naproxen, and aspirin interfere with platelet function and blood clotting and can significantly increase the risk of bleeding in combat casualties.

Tylenol and meloxicam do not alter platelet function and are safe and effective for use in combat casualties.

Meloxicam does not alter platelet function and is the preferred NSAID for personnel who may see combat in the next 7–10 days.



SLIDE 8 – ANALGESIA ADMINISTRATION VIDEO

Play video

ANALGESIA ADMINISTRATION - FMA may ONLY assist a Medic

Remember other methods of pain control:

Splinting

Wound dressing

Burn covering

Distraction and reassurance



SLIDE 9 – ANTIBIOTICS OVERVIEW VIDEO

Play video

ANTIBIOTIC ADMINISTRATION - FMA may ONLY assist a Medic



SLIDE 10 – WOUND MEDICATION PACK

Play video

The WMP is found in the Medic's Kit. It contains the medications for pain and antibiotics that can be taken by mouth.

Take the WMP as soon as possible after life-threatening conditions have been addressed.

Document all medications administered and time given on the Cas Card.



Pain is common with battlefield injuries. Some injuries and levels of pain can be treated safely by using pain medications (also known as analgesics) in the WMP. These include fractures, burns, and eye injuries.

For pain relief on the battlefield of **mild to moderate** pain that will not keep the casualty out of the fight, ensure they take their WMP. The casualty should take **all three medications** in the WMP. This can give significant pain relief and will not alter the casualty's mental status. This is a good option when the casualty's pain and wounds are not severe enough to keep them out of the fight.

NOTE: If the casualty has wounds or pain severe enough to render them unable to fight, then medical personnel have other options for more effective pain relief. Giving these meds will generally require that the casualty be disarmed because the meds can alter the casualty's mental status.

SLIDE 11 – WHEN TO ASSIST THE MEDIC TO GIVE WMP

GIVE the WMP when the casualty:

- Is **conscious** and able to swallow?
- Has **mild to moderate** pain?
- Is still **able to fight** if needed?
- Has any **penetrating wounds** or break of the skin?

DON'T GIVE if the casualty:

- Is **unable** to swallow or take oral meds, such as when the casualty is unconscious or has severe facial trauma or burns
- Has known **allergies** to the medications

If the casualty is **unconscious**, refer them to medical personnel as soon as possible.

Note: If the casualty has a break in the skin in a traumatic injury, they should take the WMP. Otherwise, consult with medical personnel before giving it.



SLIDE 12 – SKILL STATION

At this time we will break into skill stations to practice the following skill:

- Wound Medication Pack



SLIDE 13 – SUMMARY

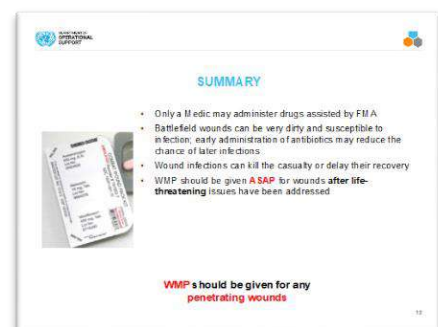
Only a Medic may administer drugs assisted by FMA

Battlefield wounds are often dirty and susceptible to infection. Early administration of antibiotics from the WMP may reduce the chance of later infections.

Wound infections can kill the casualty or delay their recovery.

The WMP should be given **ASAP** for wounds after **life-threatening** issues have been addressed.

Remember: The WMP should be given for any penetrating wounds.

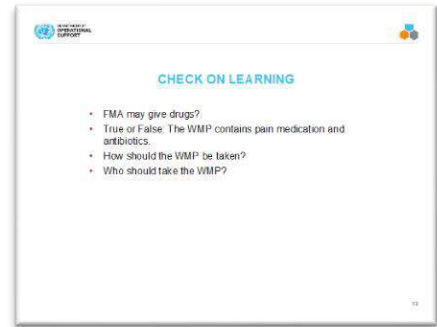


SLIDE 14 – CHECK ON LEARNING

Ask questions of the learners referring to key concepts from the module.

Now for a check on learning.

1. FMA may give drugs?
 - False
2. True or False – The WMP contains pain medication and antibiotics.
 - True
3. How should the WMP be taken?
 - The entire WMP should be taken orally.
4. Who should take the WMP?
 - Casualties who have a break in the skin and/or are in pain



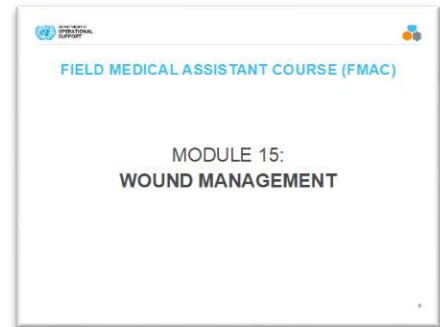
SLIDE 15 – QUESTIONS



MODULE 15

WOUND MANAGEMENT

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

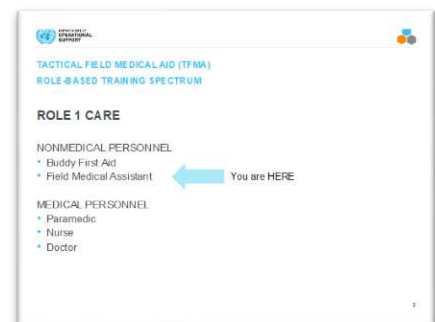
UN Tactical Combat Casualty Care is broken up into **two** roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

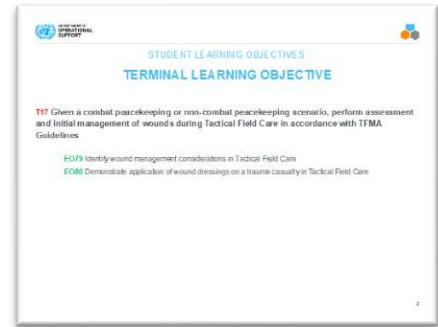
Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



SLIDE 3 – TLO/ELO

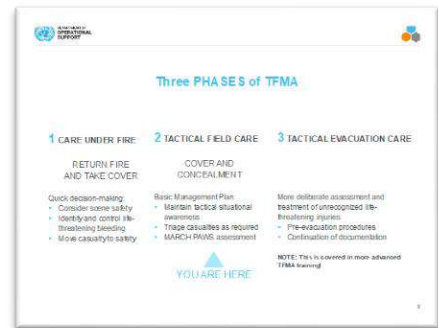
The wound management module has **one cognitive learning objective** and **one performance learning objective**. The cognitive learning objective is to identify wound management considerations, and the performance learning objective is to demonstrate application of wound dressings on a trauma casualty.

The critical aspects are to recognize non-life-threatening wounds, know the steps to treat them and when in the treatment sequence they should be addressed, and then to demonstrate how to apply wound dressings to those injuries.



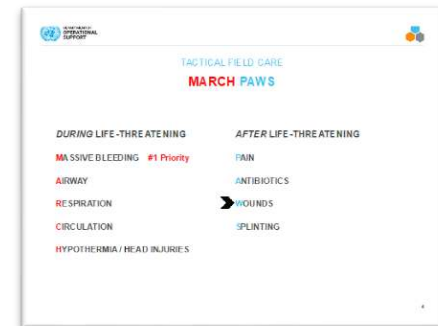
SLIDE 4 – THREE PHASES OF UN TCCC

Remember, you are now in the Tactical Field Care phase of care, so the focus has shifted from immediate life-threatening hemorrhage control while still under enemy fire in the Care Under Fire phase, to the reassessment of all previous interventions, followed by the prevention and treatment of other injuries and complications such as wound management.



SLIDE 5 – MARCH PAWS

Wound management is the “W” in the MARCH PAWS sequence.

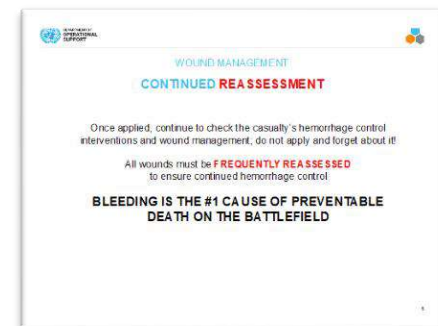


SLIDE 6 – CONTINUED REASSESSMENT

Once the casualty's hemorrhage has been **controlled**, continue to check control interventions and wound management. All wounds must be **FREQUENTLY REASSESSED** to ensure continued hemorrhage control.

DO NOT EVER APPLY IT AND FORGET IT!

REMEMBER: BLEEDING IS THE #1 CAUSE OF PREVENTABLE DEATHS ON THE BATTLEFIELD.



SLIDE 7 – CONFIRM ALL WOUNDS ARE ACCOUNTED FOR

Confirm **all wounds** have been addressed.

Reassess for re-bleeding under gauze or bandages to ensure bleeding is controlled.

Look for blood flowing around or under TQs, bandages, and dressings.

If the bleeding has not been controlled, tighten the tourniquet or pressure bandage for that wound if possible, and redress any wounds as necessary.

Also, check other wounds to make sure that:

- Fractures are splinted
- All wounds are wrapped
- Eye injuries are shielded
- Open chest wounds are accounted for



SLIDE 8 – TREAT FOR RE-BLEEDING

Always monitor wounds, and **FREQUENTLY REASSESS** to ensure hemorrhage has been controlled.

Pack any wounds that **continue to bleed** with new hemostatic dressing.

Once the dressing has been applied with pressure for **3 minutes**, carefully observe for blood continuing to flow from under the gauze to determine if bleeding has been controlled.

Once you are sure the bleeding has stopped, apply a new pressure bandage over the hemostatic dressing.

ALWAYS REASSESS TREATMENT to make sure bleeding remains controlled.



SLIDE 9 – DRESSINGS AND BANDAGES FOR MINOR WOUNDS

Dress any previously **untreated wounds** by applying (or packing) gauze with direct pressure.

Non-life-threatening bleeding usually does not need a hemostatic dressing.

If no dressings or gauze are available, use a clean, dry cloth, such as torn clothing or cravats.

Minor wounds include minor lacerations and abrasions, such as road rash.

Other wounds that may need to be dressed include major wounds that are no longer bleeding, such as:



- Amputation stumps
- Gunshot wounds that required a tourniquet
- Major lacerations
- Shrapnel wounds, possibly with shrapnel still in place
- Impaled objects

SLIDE 10 – REASSESS APPLIED BANDAGES

Continuously reassess all applied pressure bandages for:

- Increased pain
- Skin color
- Loss of the pulse

If any of these develop, it might indicate an emergency!

In this case, ensure the applied bandage isn't too tight, and loosen it as needed while keeping the bleeding controlled.

Most importantly, **DO NOT EVER APPLY IT AND FORGET IT!**



SLIDE 11 – SKILL STATION

At this time we will break into skill stations to practice the following skills:

- Wound dressing



SLIDE 12 – SUMMARY

In this module, we addressed key considerations in wound management and the application of wound dressings on a trauma casualty. We discussed how to recognize non-life-threatening wounds, what steps to take to treat them, when in the treatment sequence they should be addressed, and how to apply wound dressings to those injuries.

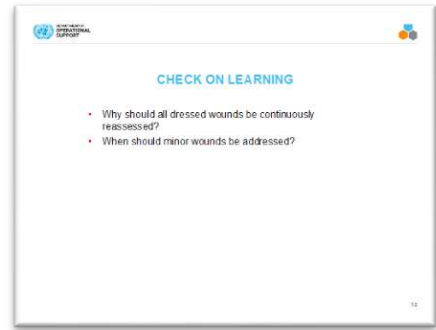


SLIDE 13 – CHECK ON LEARNING

Ask questions of the learners referring to key concepts from the module.

Now for a check on learning.

1. Why should all dressed wounds be continuously reassessed?
 - To ensure continued hemorrhage control
2. When should minor wounds be addressed?
 - During the “Wounds” portion of the MARCH PAWS sequence



SLIDE 14 – QUESTIONS



MODULE 16

BURN TREATMENT

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

UN Tactical Combat Casualty Care is broken up into two roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



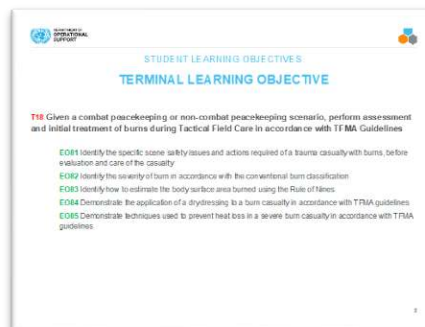
SLIDE 3 – TLO/ELO

The burn module has **three cognitive learning objectives** and two performance learning objectives.

The cognitive learning objectives are to identify the scene safety issues associated with burn scenarios and any actions required to secure the scene, identify the severity of the burns, and estimate the percentage of the body surface involved in the burn.

The performance learning objectives are to demonstrate how to apply a burn dressing and techniques to prevent heat loss (hypothermia) in a burn trauma casualty.

The critical aspects are to recognize safety concerns in burn scenarios, know the types of burns by severity and know how to estimate body surface area affected by a burn, and then to apply burn dressing(s) and perform the necessary skills to successfully prevent heat loss (hypothermia) in a burn trauma casualty.



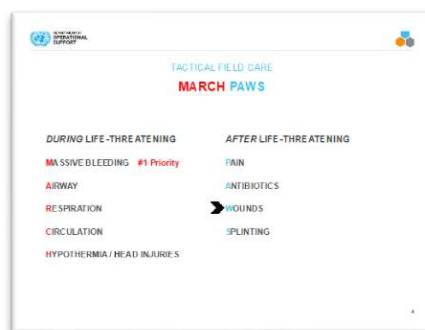
SLIDE 4 – THREE PHASES OF UN TCCC

Remember, you are now in the Tactical Field Care (TFC) phase of care, so the focus has shifted from immediate life-threatening hemorrhage control while still under enemy fire in the Care Under Fire (CUF) phase, to the reassessment of all previous interventions, followed by the prevention and treatment of other injuries and complications such as burns.



SLIDE 5 – MARCH PAWS

Burns are part of the “W” in the MARCH PAWS sequence which stands for wounds.



SLIDE 6 – FOLLOW MARCH PAWS

A burned casualty is still a **trauma casualty**.

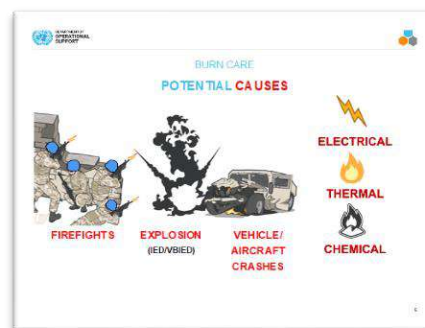
You **must** address all other **life-threatening injuries** using the MARCH PAWS sequence first.

Remember, all trauma treatments can be performed on or through burned skin.



SLIDE 7 – POTENTIAL CAUSES

Burns can happen during firefights, explosions, or vehicle or aircraft crashes, or from exposure to electrical, thermal, or chemical events.



SLIDE 8 – ELECTRICAL

In an electrical injury, the **first thing** to do is to secure the power, if possible.

Otherwise, remove the casualty from the electrical source using a **nonconductive object**, such as a wooden stick. Then, move the casualty to a safe place.



SLIDE 9 – THERMAL

In a thermal injury, such as flames and flashes, the first step is to **stop the source of the burning**.

This may entail smothering the flames or removing the casualty from the heat source, but always remember to protect yourself from getting burned while doing this.

Then, to assess and manage the burn, cut the clothing from around the burned area and gently lift it away. If the clothing is stuck to the burn, **cut around the edges** of the clothing that has adhered to the skin and leave it in place. **Do not pull it off** the burn. Let medical personnel address removal of any remaining/attached materials when they assume care of the casualty.



Be sure to avoid grabbing or further damaging burned areas by manipulating them during casualty movements.

SLIDE 10 – CHEMICAL

Chemical burns can be caused by many different types of chemicals present in vehicles, machinery, and even some weapons.

An example of a chemical weapon is **white phosphorus**. It is commonly found in tank, mortar, and artillery rounds.

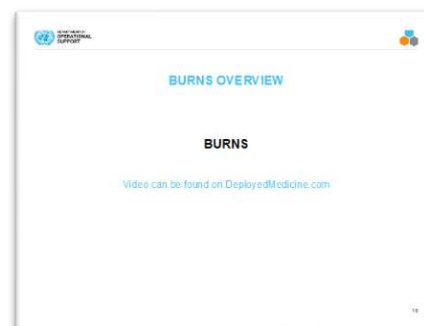
To prevent continued burning from the chemical, **submerge the affected area in water**, if possible.

If submersion is not possible, the dressing must be wet, which can be done by applying a wet barrier, such as water-soaked gauze, clothing, or mud, and covering with an occlusive dressing. Submersing the affected area removes the oxygen supply that causes the burning. Advise medical personnel immediately in the case of a chemical burn.



SLIDE 11 – BURNS OVERVIEW (VIDEO)

Play video.



SLIDE 12 – SEVERITY OF BURN

Burns range in severity. Here are visuals to help identify the severity of the burn, based on its depth.

Superficial, or **first-degree burns**, will appear reddened like a sunburn.

Partial thickness, or **second-degree burns**, will also appear reddened but may also have blisters.

Full thickness, or **third-degree burns**, will be dry, stiff, leathery, and variable in color.



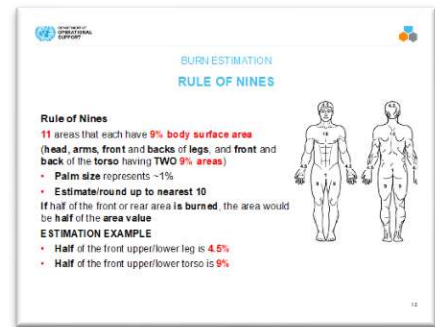
SLIDE 13 – RULE OF NINES

On the Casualty Card the percentage of coverage on the casualty's body will need to be documented. The Rule of Nines will help with the estimation. The graphic here shows the approximation for each area of the body:

Eleven areas each have 9% body surface area (head, arms, front and back of legs, and front and back of the torso having two 9% areas each).

General guidelines are that the size of the palm of the hand represents approximately 1% of the burned area. When estimating, it is easiest to round up to the nearest 10. If half of the front or rear area is burned, the area would be half of the area value.

For example, if half of the front upper leg or front lower leg is burned, it would be half of 9%, or 4.5%. If half of the front torso is burned, say either the upper or lower part of the front torso, then it would be half of 18%, or 9%. Remember, the higher the percentage burned, the higher the chance for hypothermia.



SLIDE 14 – BURN CARE

All UN TCCC procedures can be performed on or through burned skin in a burn casualty.

Remove all watches and jewelry from the burned area so they don't cause constriction when swelling occurs.

Cover the burned area with a dry, sterile dressing, if possible. For **white phosphorus** only, cover the area with a wet dressing.

REMEMBER: Treat the casualty first, not the burn.



SLIDE 15 – BURN CARE + HYPOTHERMIA PREVENTION

Be mindful of burns along with massive bleeding.
Ensure bleeding is controlled.

Burn patients are particularly susceptible to hypothermia. Extra emphasis should be placed on barrier heat loss prevention methods. Keep casualties **off the ground** and onto an insulated surface as soon as possible.

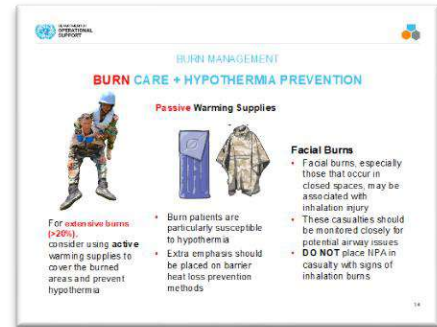
For **extensive burns**, those with **>20%** of the area burned, consider placing the casualty in the Heat Reflective Shield (HRS) to cover the burned areas and prevent hypothermia.

Regardless of ambient temperature in the environment, actively prevent/manage hypothermia for burn patients using these methods.

Facial burns, especially those that occur in closed spaces, may be associated with inhalation injury. These casualties should be monitored closely for potential airway issues. **DO NOT** place an NPA in a casualty with signs of inhalation burns. Notify medical personnel as soon as possible if an inhalation injury is suspected.

Analgesia may be administered to treat burn pain. Antibiotic therapy is not indicated solely for burns but should be given to prevent infection in penetrating wounds.

Be mindful of warm weather and cool weather interventions. The addition of blood loss can cause the body's temperature to drop even when it is hot outside. Never cover a tourniquet; keep it visible so medical personnel can easily see it.



SLIDE 16 – SKILL STATION

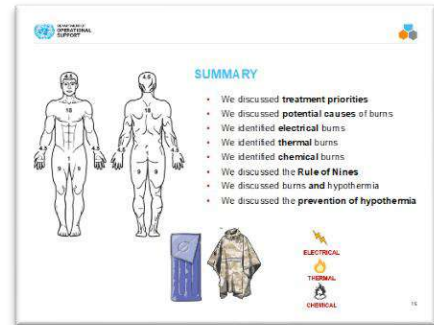
At this time, we will break into skill stations to practice the following skills:

- Burn dressing



SLIDE 17 – SUMMARY

In this module, we discussed burn care. We identified the safety concerns in burn scenarios and actions required to secure the scene. We addressed how to know the types of burns by severity and how to estimate the body surface area affected by a burn. We also demonstrated application of a burn dressing and techniques to prevent heat loss in a burn trauma casualty.

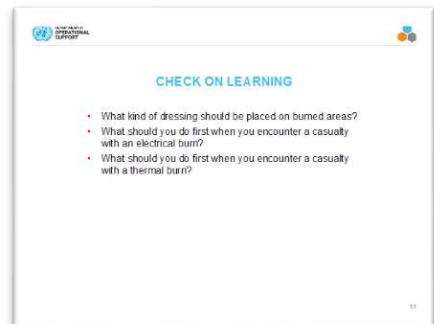


SLIDE 18 – CHECK ON LEARNING

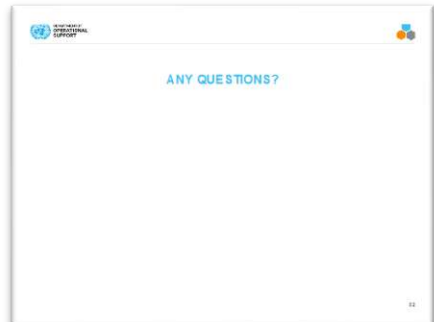
Ask questions of the learners referring to key concepts from the module.

Now for a check on learning.

1. What kind of dressing should be placed on burned areas?
 - A dry sterile dressing
2. What should you do first when you encounter a casualty with an electrical burn?
 - Secure the power, if possible; otherwise, remove the casualty from the electrical source using a nonconductive object, such as a wooden stick.
3. What should you do first when you encounter a casualty with a thermal burn?
 - Stop the source of the burn



SLIDE 19 – QUESTIONS



MODULE 17

FRACTURES

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

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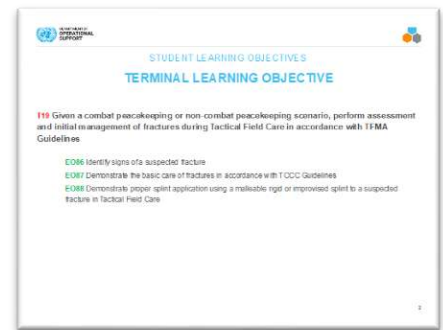


SLIDE 3 – TLO/ELO

The fractures model has one cognitive learning objective and two performance learning objectives.

The cognitive learning objective is to identify the signs of a suspected fracture, and the performance learning objectives are to demonstrate the basic care of fractures and proper splint application using a malleable rigid or improvised splint to a suspected fracture on a trauma casualty.

The critical aspects are to recognize fractures and how to treat them, and then to perform the necessary skills to successfully care for a fracture in a trauma casualty by applying an appropriate splint.



SLIDE 4 – THREE PHASES OF TCCC

Remember, you are now in the Tactical Field Care (TFC) phase of care, so the focus has shifted from immediate life-threatening hemorrhage control while still under enemy fire in the Care Under Fire (CUF) phase, to the reassessment of all previous interventions, followed by the prevention and treatment of other injuries and complications such as fractures.



SLIDE 5 – MARCH PAWS

Fractures are the “S” in the MARCH PAWS sequence, which stands for splinting.



SLIDE 6 – ASSESS FOR A FRACTURE

Fractures can be **open** or **closed**.

Closed fractures have no open wound (break in skin).

Open fractures have an open wound of the skin, sometimes with protruding bone, and this type of fracture is a major threat for serious infection.

The warning signs of a fracture are:

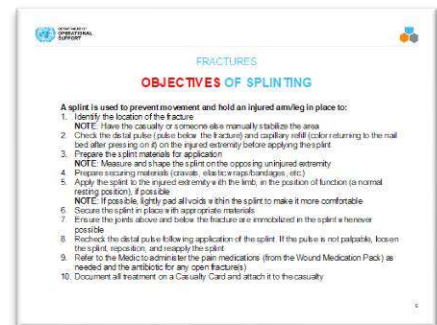
- Significant pain and swelling
- An audible or perceived “snap”
- Different length or shape of the casualty’s limb
- Loss of pulse or sensation in the injured arm or leg
- Crepitus, which is hearing a crackling or popping sound under the skin when the area is moved



SLIDE 7 – OBJECTIVES OF SPLINTING

Splints are used to prevent movement and hold an injured arm or leg in place:

1. Identify the location of the fracture.
NOTE: Have the casualty or someone else manually stabilize the area.
2. Check the **distal pulse** (pulse below the fracture) and capillary refill (color returning to the nail bed after pressing on it) on the injured extremity before applying the splint.
3. Prepare the splint materials for application.
NOTE: Measure and shape the splint on the opposing uninjured extremity.
4. Prepare securing materials (cravats, elastic wraps/bandages, etc.)
5. Apply the splint to the injured extremity with the limb, in the position of function (a normal resting position), if possible.
NOTE: If possible, lightly pad all voids within the splint to make it more comfortable.
6. Secure the splint in place with appropriate materials.
7. Ensure the joints above and below the fracture are immobilized in the splint whenever possible.
8. Recheck the distal pulse after applying the splint. If the pulse is not palpable, loosen the splint, reposition, and reapply the splint.
9. Document all treatment on a Casualty Card and attach it to the casualty.



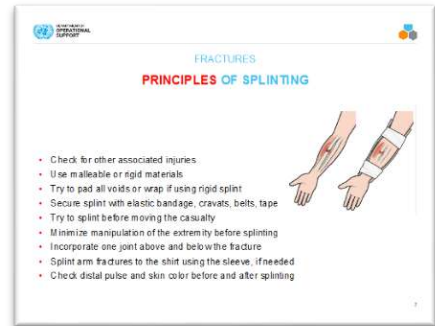
Remember, if a wound is present near a fracture, it must be properly dressed before the splint is applied.

SLIDE 8 – PRINCIPLES OF SPLINTING

Splinting can be accomplished with rigid or malleable materials found in the BFAK/ UNTP or improvised.

The joint above and below the fracture site should be immobilized with the splint.

It is critical to check pulses distal to the fracture before and after splinting.



SLIDE 9 – THINGS TO AVOID WHEN SPLINTING

- Manipulating the fracture site too much, resulting in pain, additional damage to blood vessels and nerves, etc.
- Securing too tightly and cutting off blood flow
- Failing to immobilize the joint above and below the fracture when possible
- Causing further injury
- Making the casualty uncomfortable during transport/evacuation
- Splinting near or over a wound that has not been properly treated



SLIDE 10 – GUIDELINES FOR LEG SPLINTS

Be mindful of cravat placement. Do not apply a cravat on the fracture site, as the pressure from the cravat could cause additional injury to the fracture site.

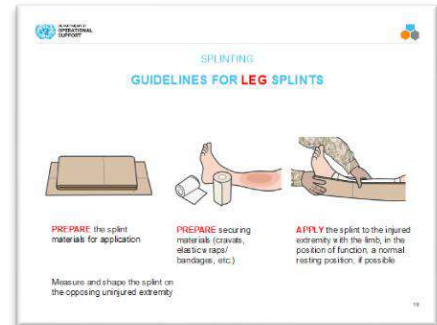
Do not place the ends of the splint against the groin, as this could interfere with blood circulation. Use extra padding for joints or sensitive areas, such as the groin.

First, Identify the location of the fracture. Then, before applying the splint, CHECK the distal pulse, which is the pulse below the fracture. Also, CHECK capillary refill on the injured extremity. This can be done by seeing the color returning to the nail bed after pressing on it.



SLIDE 11 – GUIDELINES FOR LEG SPLINTS (CONTINUED)

APPLY the splint to the injured extremity with the limb in the position of function or a normal resting position if possible.



SLIDE 12 – GUIDELINES FOR LEG SPLINTS (CONTINUED)

SECURE the splint in place with appropriate materials.

ENSURE the joints above and below the fracture are immobilized in the splint whenever possible.

RECHECK the distal pulse after applying the splint.

Watch for signs of poor circulation, including coolness, numbness, or lack of a pulse. Ensure the ends of the rigid objects are not interfering with blood circulation.

If there are any signs of poor circulation, loosen the splint, reposition, and reapply.



SLIDE 13 – GUIDELINES FOR ARM SPLINTS

Movement or manipulation of a fractured extremity results in increased pain:

- If possible, have the casualty support their injured arm while preparing the equipment
- Mold the padded splint using the casualty's unaffected limb to avoid unnecessary manipulation
- Use triangular bandages to immobilize the fracture and secure the limb to the body to minimize unnecessary movement during transport.



SLIDE 14 – GUIDELINES FOR ARM SPLINTS (CONTINUED)

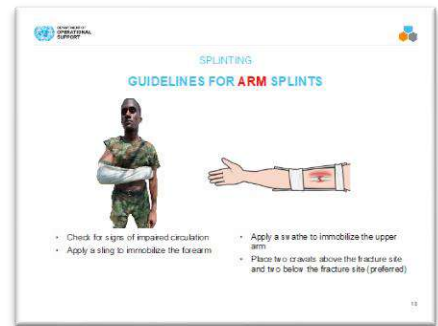
Place the rigid objects so that one is on each side of the injured arm or forearm.

When possible, position the rigid objects so that the joint above the fracture and the joint below the fracture will be immobilized.

Apply padding between the arm and the splints.

Secure the splints with cravats, strips of cloth, or other securing materials.

If possible, place two cravats above the fracture site and two below the fracture site.



SLIDE 15 – SPLINTING AN ARM (VIDEO)

Play video.



SLIDE 16 – SKILL STATION

At this time, we will break into skill stations to practice the following skills:

- Splinting



SLIDE 17 – SUMMARY

The most important aspect of splinting is to splint in a way that does not harm the nerves or blood vessels in the splinted extremity.

Before and after splinting, assess the following:

1. **Circulation:** check the pulses distal to the splint (between the splint and the end of the arm or leg).
2. **Motor:** ask the casualty to move the body parts distal to the splint, e.g., the fingers or toes.
3. **Sensory:** see if the casualty can feel a gentle touch on the body parts distal to the splint.

After splinting, make sure to document all assessment and treatment on the Casualty Card.

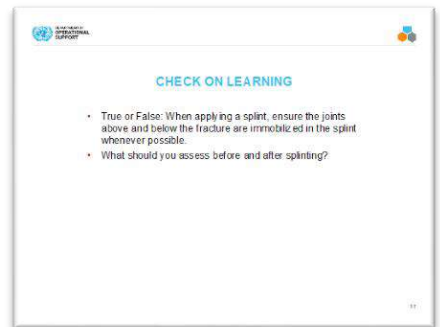


SLIDE 18 – CHECK ON LEARNING

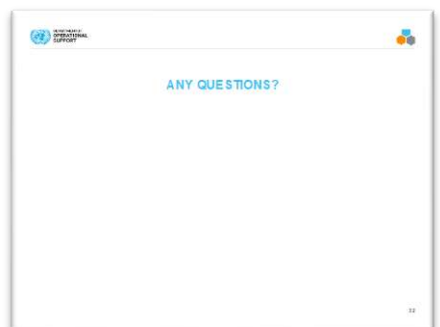
Ask questions of the learners referring to key concepts from the module.

Now for a check on learning.

1. True or False: When applying a splint, ensure the joints above and below the fracture are immobilized in the splint whenever possible.
 - True
2. What should you assess before and after splinting?
 - Circulation – pulse check
 - Motor – movement
 - Sensory – feeling



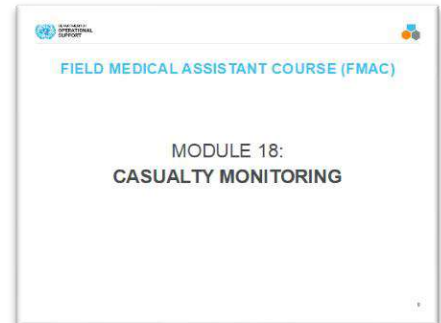
SLIDE 19 – QUESTIONS



MODULE 18

CASUALTY MONITORING

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

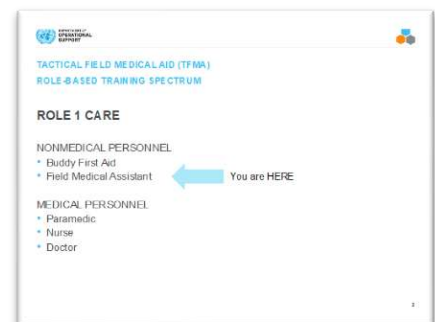
UN Tactical Combat Casualty Care is broken up into two roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



SLIDE 3 – TLO/ELO

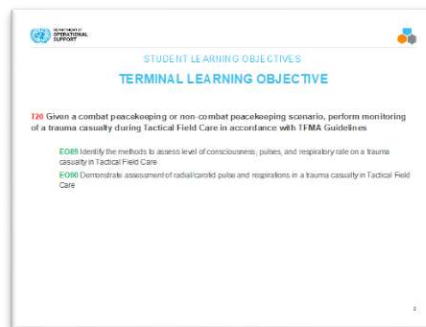
The casualty monitoring module has **one cognitive learning objective** and **one performance learning objective**.

The cognitive learning objective is to identify the methods to assess level of consciousness, pulses, and respiratory rate of a trauma casualty.

The performance learning objective is to demonstrate the assessment of radial and/or carotid pulse and respirations in a trauma casualty.

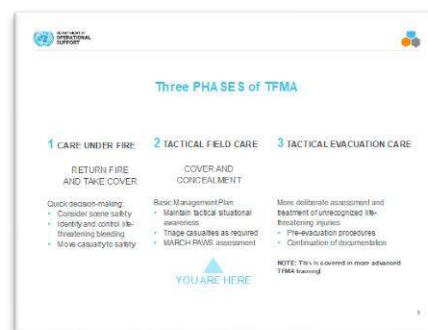
The critical aspects are to recognize when and how to monitor a trauma casualty, and then to perform the necessary skills to assess the pulse rate, respiratory rate, and level of consciousness of the casualty.

The critical aspects are to recognize when and how to monitor a trauma casualty, and then to perform the necessary skills to assess the pulse rate, respiratory rate, and level of consciousness of the casualty.



SLIDE 4 – THREE PHASES OF UN TCCC

Remember, you are now in the Tactical Field Care (TFC) phase of care, and so the focus has shifted from immediate life-threatening hemorrhage control while still under enemy fire in the Care Under Fire (CUF) phase, to the reassessment of all previous interventions, followed by the prevention and treatment of other injuries and complications. Casualty monitoring is an important part of this phase.



SLIDE 5 – ASSESSMENT USING MARCH PAWS

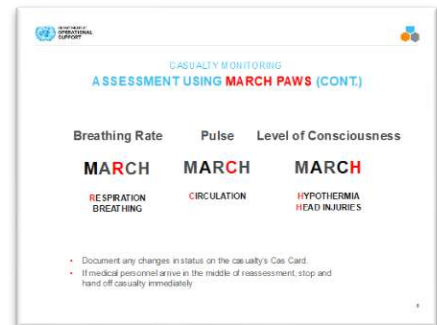
After your initial casualty assessment and performing any treatments that were indicated, continue to monitor your casualty and reassess their status **every 5 to 10 minutes** until you have handed off the casualty to medical personnel.

During your reassessments, follow the same MARCH PAWS process to guide your assessment, starting with reassessing and massive bleeding issues/interventions, and then looking at their airway status.



SLIDE 6 – ASSESSMENT USING MARCH PAWS (CONTINUED)

Next, evaluate for any changes in respiratory status, look for any signs or symptoms of shock, and check for ongoing issues with hypothermia or head injuries by monitoring the casualty's respiratory rate, pulses, and level of consciousness.



SLIDE 7 – LEVEL OF CONSCIOUSNESS

The level of consciousness is best expressed by addressing the casualty's response using the AVPU acronym as a guide.

AVPU stands for:

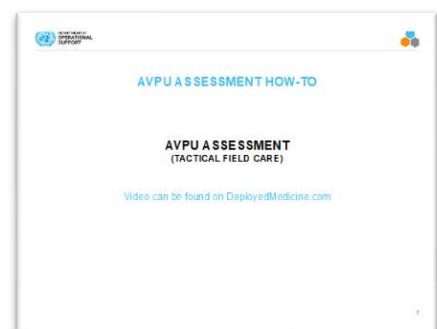
- Alert
- Verbal
- Pain
- Unconscious



A casualty who is awake and conversing with you appropriately is “alert.” If they are not fully alert and appropriate, but can still respond to your verbal commands (like asking them to raise their hand or move their toes), they are “verbal.” If they do not respond to verbal commands, but respond to pain when performing assessments/procedures or withdraw from you when you rub their breastbone with your knuckles, they are “pain.” And if they do not respond to painful stimuli, then they are “unconscious.” Documenting the timing on any AVPU assessments and any changes in status helps medical personnel better understand the casualty's situation.

SLIDE 8 – AVPU ASSESSMENT HOW-TO

Play video.



SLIDE 9 – CHECKING PULSE

Play video.

Assessing a casualty's circulation status is done by checking for pulses.

Depending on the casualty and their injuries, you can check the casualty's pulse at either the carotid artery (neck) or radial artery (wrist).

You should use your index and/or middle fingers, **NOT your thumb**, to check pulses.

The absence of a radial pulse is an indication that the casualty is in shock.

Document pulse rates and locations, with the time taken, on the Casualty Card.



SLIDE 10 – CHECKING RESPIRATIONS

Another sign to monitor is the casualty's respiratory status. This involves checking the rate and the quality of the respirations.

By **looking, listening, and feeling** for breaths on your cheek, you can determine the respiratory rate (documented in number of breaths/minute) and the respiratory effort – shallow breaths, difficulties moving air in and out, loss of air movement on one side of the chest, etc.

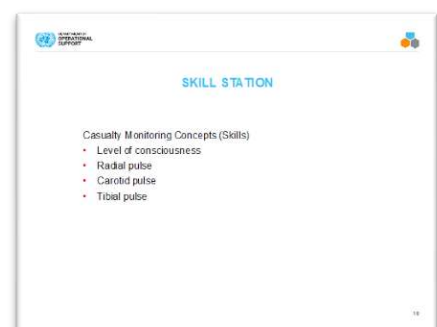
Document the rate, respiratory effort, and time you assessed them on the Casualty Card.

If the casualty's respiratory status begins to change, reassess their status using the same approach you used in the tactical trauma assessment. You may need to insert a nasopharyngeal airway, place a chest seal, or perform a needle decompression of the chest if a tension pneumothorax is present.



SLIDE 11 – SKILL STATION

During the skill station, you'll have the chance to practice checking pulses and respiratory rates on one another, and documenting them on a Casualty Card.



SLIDE 12 – SUMMARY

There are videos on checking AVPU status, performing pulse checks, and measuring the respiratory rate for additional information.

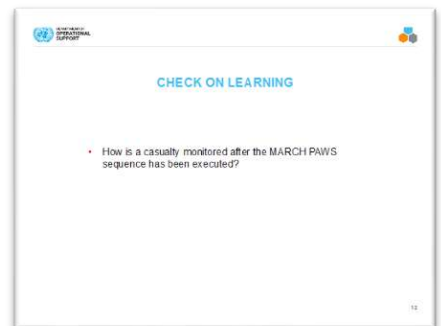


SLIDE 13 – CHECK ON LEARNING

Ask questions of the learners referring to key concepts from the module.

Now for a check on learning.

1. How is a casualty monitored after the MARCH PAWS sequence has been executed?
 - Monitor for changes in level of consciousness
 - Monitor pulse
 - Monitor respiratory distress
 - Reassess all previous interventions



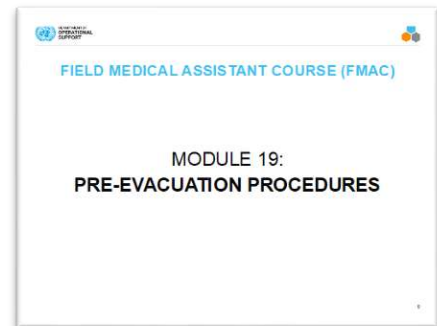
SLIDE 14 – QUESTIONS



MODULE 19

PRE-EVACUATION PROCEDURES, COMMUNICATION, AND DOCUMENTATION

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

UN Tactical Combat Casualty Care is broken up into two roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

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Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



SLIDE 3 – TLO/ELO

The pre-evacuation procedures module has **four cognitive learning objectives** and **two performance learning objectives**.

The cognitive learning objectives are to identify the importance of and techniques for communicating casualty information, identify the information requirements and format of an evacuation request (4- line), identify the recommended evacuation prioritization for combat casualties, and identify how to document casualty information on the Cas card.

The performance learning objectives are to demonstrate the communication of evacuation request information and modified medical information report and demonstrate the proper documentation of care on a trauma casualty.

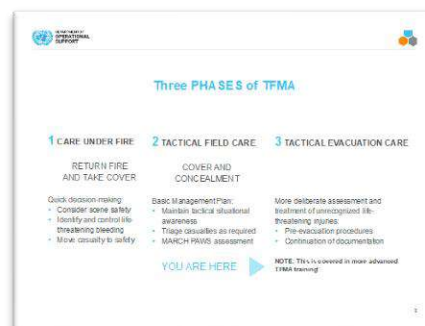
The critical aspects are to understand the importance of communication and know the information requirements for evacuation prioritization, evacuation requests, and casualty care documentation. Also, it is necessary to demonstrate the skills needed to successfully document casualty care and communicate an evacuation request.



SLIDE 4 – THREE PHASES OF UN TCCC

Pre-evacuation procedures bridge both Tactical Field Care (TFC) and Tactical Evacuation Care.

Immediate life-threatening hemorrhage control followed by the prevention and treatment of other injuries and complications have all been completed before most pre-evacuation procedures are initiated, although some of the communication and documentation may be ongoing during the TFC phase.



SLIDE 5 – COMMUNICATION

Communicate with the casualty **throughout care**.

Being physically wounded may generate significant anxiety and fear above and beyond the psychological trauma of combat.

Talk frankly with the casualty about their injuries. Offer reassurance by describing the treatments being rendered. Emphasize that everything possible is being done on their behalf and that they will be well taken care of. These steps will help to counter their anxiety.

Be honest about the injuries sustained but maintain a positive attitude about rescue and treatment. Talking with the casualty helps assess their mental status, while talking through procedures helps maintain your own confidence and the casualty's confidence in you.



Communicate **with tactical leadership ASAP** and throughout casualty treatment. Tactical leadership needs to understand the impact to the mission.

For example, tactical leadership may need to know:

- How many casualties were inflicted?
- Who is down as a casualty?
- Can the casualty still fight?
- Has the enemy threat been eliminated?
- Are weapons systems down or fields of fire not covered because the unit has taken casualties?
- Is it necessary to have others fill in the casualties' fighting positions or to move the casualties?

Communicate with the evacuation coordination cell to arrange for CASEVAC. Communicate with medical providers about details of the casualty's injuries. This includes 4-line communication and ongoing **MIST** reports.

Medical leadership may need to know:

- What injuries were sustained
- The mental and physical status of each casualty
- Treatments rendered and treatments needed
- Does the medic need to triage multiple casualties?
- Should the medic move to a casualty, or should the casualty be moved to the medic?
- Does the unit need to break out litters or extraction equipment?

SLIDE 6 – COMMUNICATE RELEVANT CASUALTY DATA

Medical documentation may be difficult to accomplish in tactical prehospital settings, but it is important to the casualty's **subsequent care** that every effort be made to document the care provided by first responders and medics throughout the trauma care continuum, from point of wounding/injury to definitive care at the hospital.

Communication is also important, as the injured casualty may impact the success of the mission or change the tactical landscape.

A **Casualty Card** is provided in each Buddy First Aid Kit (BFAK). Based on the principles of UN TCCC, the card provides an easy way to document initial lifesaving care provided at the point of wounding. The card also serves as a prompt to remind first responders of the assessment and treatment steps of the MARCH sequence.

The Casualty Card is relatively self-explanatory, but there might be some acronyms or sections that are intuitive to someone who hasn't filled one out before. So, we'll watch this video on the subject to familiarize ourselves with the form, and then we'll practice filling one out with each casualty as we go through the rest of the skills training. This information about the casualty informs the medical evacuation request and can be collected simultaneously with the other required information.



MIST stands for **M**echanism of injury, **I**njuries, **S**igns and **S**ymptoms and **T**reatment. MIST reporting has become a norm in operational theaters. The MIST transmits medical information to the receiving treatment facility and to the evacuation platform. A MIST report conveys additional evacuation information that may be required by theater commanders.

MIST information helps the receiving medical treatment facility better prepare for specific inbound casualties. Transitioning casualty care to another medical team is best accomplished with an oral discussion of the casualty's status, along with the written documentation on the Casualty Card. But in cases where an oral hand-off isn't a viable option, the written information may be the only way receiving medical personnel will know what you have done to help the casualty and what the next steps should be to provide the best care going forward.

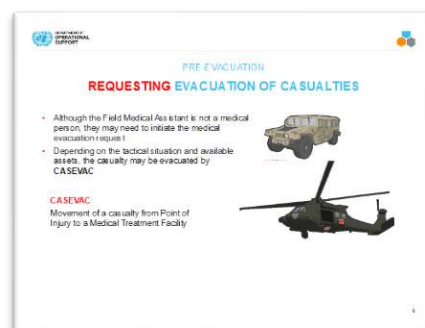
SLIDE 7 – REQUESTING EVACUATION OF CASUALTIES

Every UN member should **be able to initiate** a medical evacuation request.

Depending on the situation, transport will be dispatched **Casualty Evacuation (CASEVAC)**

Bespoke medical evacuation platforms are marked with a **red cross** and **cannot** be used for nonmedical missions.

Communicate with the evacuation system to arrange for CASEVAC. 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.



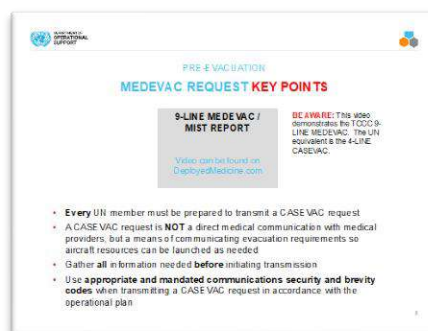
SLIDE 8 – MEDEVAC REQUEST KEY POINTS

Play video.

Before initiating an evacuation, collect all of the information you will need, and when calling in, be sure to follow all appropriate communication protocols and guidance.

Remember that when you request a medical evacuation, you aren't directly coordinating with medical providers, but are explaining your evacuation requirements with someone who coordinates air asset movements.

Although they still require some general information about the status of the casualty, much of the information that they need to coordinate evacuation is not clinical and relates to logistical and operational issues.



SLIDE 9 – 4-LINE: CASEVAC REQUEST LINES 1–4

The standard CASEVAC request has **4 lines**.

Using a **phonetic alphabet** and following your unit's normal communications procedures, call in your grid location, your radio frequency and call sign, the number of casualties that you have by precedence, litters, and how many will be ambulatory.

PRE-EVACUATION
4-LINE: CASEVAC REQUEST LINES 1-4

(4 Line Format)

LINE	UN CASEVAC 4-LINE ALERT MESSAGE	PRECEDENCE
1	GRID	A
2	LOCATION AND CALL SIGN	B
3	WHAT HAS HAPPENED? (Describe the incident, injuries, etc.)	C
4	HOW MANY CASUALTIES ARE THERE?	D
	TREATMENT BEING GIVEN AND PREPARATIONS FOR EVACUATION	E

SLIDE 10 – SKILL STATION

At this time, we will break into skill stations to practice the following skills:

- 4-Line and MIST Report



SLIDE 11 – CASUALTY CATEGORIES

PRE-EVACUATION
CASUALTY CATEGORIES

Ground medical personnel will determine EVAC categories of casualties

EXAMPLES:

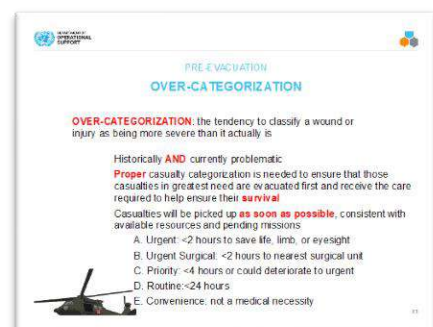
URGENT	URGENT SURGICAL	PRIORITY	ROUTINE	CONVENIENCE
<2 hours to save life, limb, or eyesight	<2 hours to nearest surgical unit	<4 hours or could deteriorate to urgent	<24 hours	Not a medical necessity
Tourniquets Controlled Haemorrhage Traumatic Brain Injuries (TBI)	Needle Decompression of the Chest (NDC) Circulatory/obstructive Major internal bleeding Massive head trauma	Compensated shock Broken arm with loss of distal pulse 2nd-degree burns to a large portion of the abdomen or extremities	Abrasions Cardiac arrest Small fractures Possible 2nd-3rd degree burns >75% of body surface area (BSA)	Used for administrative purposes for casualty movement

SLIDE 12 – OVER-CATEGORIZATION

It is important to **accurately categorize casualties** for CASEVAC to ensure that the limited evacuation resources are used as efficiently as possible.

Over-categorization is a tendency to categorize a wound or injury as being more severe than it actually is. This has been and is currently a problem on the battlefield.

Proper categorization helps triage casualties in the order of greatest need and avoid sending evacuation assets to a casualty who has less severe injuries while a more seriously injured casualty has a delayed evacuation.

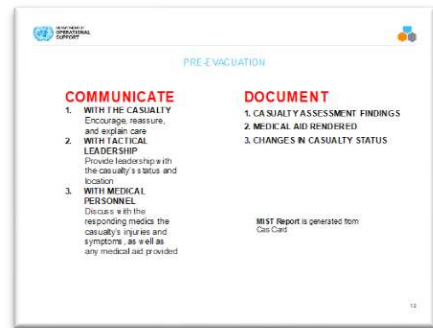


SLIDE 13 – COMMUNICATE AND DOCUMENT

In summary, during the TFC phase, we must continue to communicate with the casualty and with tactical leadership, and to initiate evacuation.

Every member of the unit must be prepared to perform any of these communication requirements.

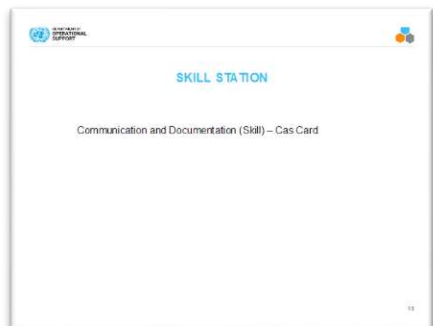
It is **important** that all UN TCCC actions and information are documented for each casualty so that the next provider in the continuum of casualty care knows what interventions have been performed, including tourniquet times, medications administered, etc.



SLIDE 14 – SKILL STATION

During the skill station for this module you will all be given a scenario that requires you to fill out a Casualty Card, documenting the casualty's injuries and treatment.

Afterwards, using this information and additional information from the scenario, you will need to prepare a MIST report and then call in a 4-line CASEVAC request.



SLIDE 15 – SUMMARY

In this module we highlighted the importance of and techniques for communicating casualty information. We demonstrated how to communicate evacuation request information and a modified medical information report along with how to properly document care on a trauma casualty. We discussed the information requirements and format of an evacuation request (4-line), the recommended evacuation prioritization for combat casualties, and documentation of casualty information on the Casualty Card.

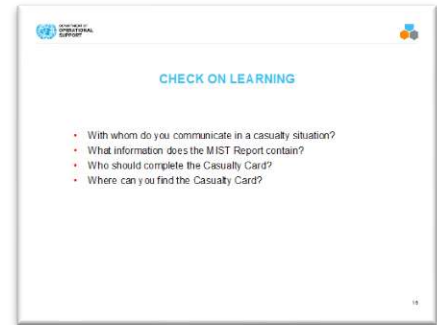


SLIDE 16 – CHECK ON LEARNING

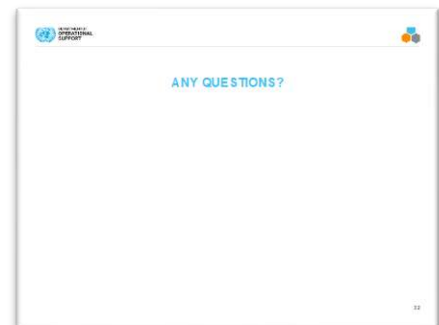
Ask questions of the learners referring to key concepts from the module.

Now for a check on learning.

1. With whom do you communicate in a casualty situation?
 - The casualty
 - The tactical leader
 - Medical personnel upon arrival
2. What information does the MIST report contain?
 - Mechanism of injury
 - Injuries
 - Symptoms
 - Treatment
3. Who should complete the Casualty Card?
 - The card should be filled out by whomever provides care to the casualty.
4. Where can you find the Casualty Card?
 - In the casualty's BFAK



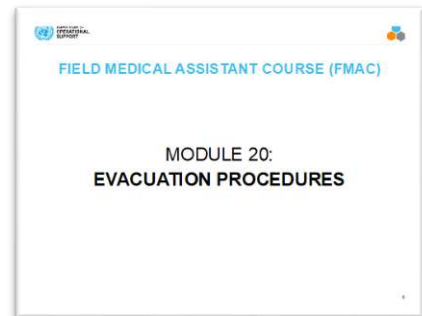
SLIDE 17 – QUESTIONS



MODULE 20

EVACUATION PROCEDURES

SLIDE 1 – TITLE SLIDE



SLIDE 2 – UN TCCC ROLES

UN Tactical Combat Casualty Care is broken up into two roles of care. The most basic taught is the UN Buddy First Aid Course (BFAC), which is designed to instruct in the absolute basics of hemorrhage control and to recognize more serious injuries.

You are in the Field Medical Assistant (FMA) role. This teaches you more advanced care to treat the most common causes of death on the battlefield, and to recognize, prevent, and communicate with medical personnel the life-threatening complications of these injuries.

The Combat Medic role includes much more advanced and invasive care requiring significantly more medical knowledge and skills.

Finally, the last role, is Medical Professionals such as Paramedics, Nurses and Doctors, to provide the most sophisticated care to keep our wounded warriors alive and get them to definitive care.

Your role as a FMA is to treat the most common causes of death on the battlefield, which are massive hemorrhage and airway/respiratory problems. Also, you are given the skills to prevent complications and treat other associated but not immediately life-threatening injuries.



SLIDE 3 – TLO/ELO

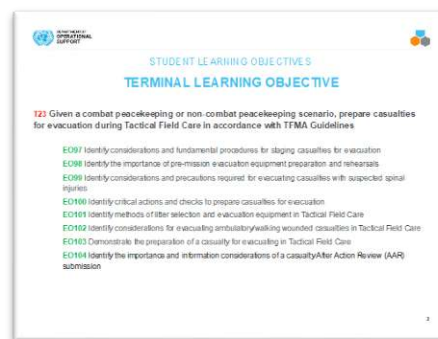
The evacuation procedures module has **seven cognitive learning objectives** and **one performance learning objectives**.

The cognitive learning objectives are to identify considerations and fundamental procedures for staging casualties, identify the importance of pre-mission evacuation equipment preparation, identify considerations and precautions required for evacuating casualties with suspected spinal injuries, identify critical actions and checks to prepare casualties for evacuation, identify methods of litter selection and evacuation equipment, identify considerations for evacuating ambulatory/walking wounded casualties and identify the importance and information considerations of a casualty After Action Review (AAR) submission.

The performance learning objective is to demonstrate the preparation of a casualty for evacuating in Tactical Field Care.

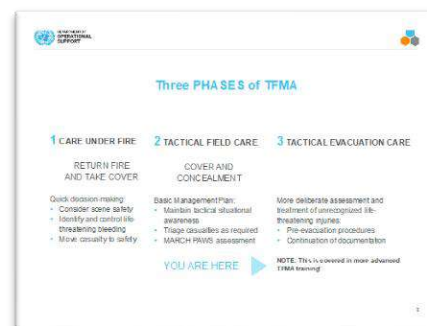
The critical aspects are to be able to recognize considerations for staging casualties, prepare equipment and litters for evacuation, prepare casualties for evacuation including suspected spinal injuries and ambulatory casualties, and understand the information needed in a casualty after-action report.

Additionally, it is important to be able to perform the necessary skills in order to prepare a casualty for evacuation.



SLIDE 4 – THREE PHASES OF UN TCCC

Evacuation procedures are part of the Casualty Evacuation (CASEVAC) phase, after immediate life-threatening hemorrhage control followed by the prevention and treatment of other injuries and complications have already been addressed.



SLIDE 5 – IMPORTANT ACTIONS (IN THIS MODULE)

Along with **requesting medical evacuation**, several actions must be taken to better prepare the casualty for evacuation.

These include **securing the casualty's weapons and equipment** in accordance with unit standard operating procedure (SOP) or mission requirements, selecting a litter that meets the casualty's needs and mission profile, preparing any



equipment that might need to go with the casualty during their evacuation, and then actually preparing the casualty for evacuation.

SLIDE 6 – SECURE CASUALTY’S EQUIPMENT

Casualties are often unable to secure their own weapons because of the nature of their injuries or an altered mental status, and it is important to secure their weapon and equipment in accordance with unit SOP or mission requirements.

The weapon should be evacuated with the casualty. Be sure to **clear it** and render it safe when preparing for movement.

DO NOT evacuate **explosives** with the casualty.

Keep in mind that the medical personnel receiving the casualty may not be familiar with the equipment or have a way of securing it.



SLIDE 7 – EVAC EQUIPMENT

Essential evacuation equipment (e.g., litters, packaging materials, Bag Valve Masks) should be prepared by other unit personnel while treatment continues, coordinating with the casualty treatment team to save time.

For example, other unit members can prepare litters while treatment is being provided.

Do not delay getting casualties onto litters. You can better prevent hypothermia by getting casualties off the ground.



SLIDE 8 – LITTERS

Casualty movement in TFC may be better accomplished using litters due to the tactical situation and the need to move casualties rapidly. The litter exists only to facilitate casualty movement, and the casualty can be placed in the best position that facilitates their care and comfort.

Casualties **DO NOT** have to be placed on their backs on a litter.

It is easier to move them if they're already on litter however, they must be secured to the litter before movement.

Litters are also usually better for moving casualties' long distances.



All unit members should know how to **open** and **set up** litters and rehearse their use during pre-mission training.

All unit members should know who will carry litters and/or where litters are located on vehicles.

SLIDE 9 – LITTER SELECTION

Selecting the proper litter is dependent on several different factors – 1) the evacuation platform, 2) the terrain at the location of pick-up, 3) the casualty's injuries, and 4) the availability of different types of litters.

For example, two of the more common litters often used are the quad-folding litter and lightweight flexible stretchers (like the Skedco).

Each of them has **advantages** and **disadvantages**, and may be the proper litter depending on the situation.

For example, the flexible litters can be moved using a one-person drag (terrain permitting) but are more difficult to carry longer distances than a quad-folding litter.

Each unit will have litters that have been proven to support **their mission profile**, and it is important to be aware of the limitations and advantages of each litter at your disposal before being deployed in a situation where you will require them.



SLIDE 10 – PACKAGE THE CASUALTY

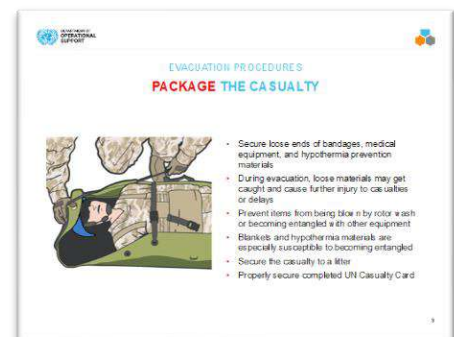
Remember, when preparing a casualty for evacuation, you need to anticipate the environmental factors that could prevent them from remaining stable, like extreme noises, vibrations, high winds from propeller wash, and exposure to cold environments from either altitude or low ambient temperatures.

Develop a plan to mitigate each of those potential threats when preparing your casualty.

Secure all loose ends of bandages, medical equipment, and hypothermia prevention materials.

You need to **prevent** dressings and other medical items from being blown around by rotor wash or becoming entangled with other equipment.

Loose materials can catch on everything, from tree limbs to body armor of litter bearers to parts of aircraft or vehicles. Any snag like this can cause delays in evacuation or even further injury to patients or providers. Blankets and foil-based hypothermia materials are especially susceptible to being caught in the wind.



Package the casualty. Hypothermia prevention equipment should be tucked and secured beneath the casualty and litter straps. Loose edges can be caught up in wind or rotor wash or snagged on objects in the helicopter as the casualty is loaded aboard.

Remember, **DO NOT** cover a tourniquet. Keep the UN Casualty Card attached to the casualty.

SLIDE 11 – EVACUATION CONSIDERATIONS FOR SUSPECTED SPINAL INJURIES

As previously mentioned, you should expect a **spinal injury** in certain situations, like fast-roping falls or being near a significant blast.

In those cases, when tactically feasible, ensure the C-spine is immobilized and the casualty is kept straight during evacuation.

Keep the litter type and evacuation platform in mind and ensure the evacuation ground/air vehicle can accommodate the selected litter.



SLIDE 12 – WALKING WOUNDED

Not all casualties require a litter for evacuation.

For those casualties who are still **ambulatory**, provide instructions or assistance as needed. Depending on the nature of their injuries, they may be able to assist with carrying litters or providing security.

It is best to guide disoriented or visually impaired casualties by having them place their hand on the shoulder of the casualty in front of them or a nonmedical attendant as they move to the evacuation platform.

Instruct them on repeatedly checking their own wounds and dressings to ensure that bleeding remains controlled throughout the evacuation process.



SLIDE 13 – STAGE CASUALTIES

Of particular importance when moving more than one casualty is the process of staging the casualties.

Based on the guidance from the medical evacuation personnel, certain casualties have priority and may need to be loaded last, so that they are the first ones off-loaded at the destination.

If not given specific guidance, place the casualty that seems to be the **most serious** in a position where they are **loaded last**, and have casualties who may be less severely injured loaded prior to them.

You may also need to assist in marking the landing zone, providing security or assisting in marshalling the aircraft or litter bearer teams.



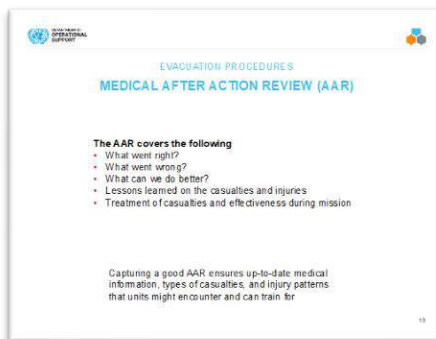
SLIDE 14 – MEDICAL AFTER-ACTION REVIEW (AAR)

Documentation of UN TCCC is critically important.

UN TCCC documentation should be accomplished using the UN Casualty Card (found in the UNTP) at the time treatment is rendered whenever possible.

If care cannot be documented using the UN Casualty Card at the point of care by the first responder or FMA, it should be documented using the UN TCCC AAR as soon as possible (within 72 hours) after treatment.

The nonmedic first responder or FMA should follow up with supporting unit medical personnel to complete and submit the UN TCCC AAR.



SLIDE 15 – SKILL STATION

In the skill station on Evacuation Procedures, you will be given scenarios that require you to make some decisions on preparing your casualties for evacuation, allow you to call in the evacuation assets, and then stage and load the casualties onto an evacuation platform, using all of the information you just learned.



SLIDE 16 – SUMMARY

In this module, we reviewed preparing a casualty for evacuation in Tactical Field Care. We discussed considerations and fundamental procedures for staging casualties, the importance of preparing pre-mission evacuation equipment, considerations and precautions for evacuating casualties with suspected spinal injuries, critical actions and checks to prepare casualties for evacuation, methods of litter selection and evacuation equipment, considerations for evacuating ambulatory or walking wounded casualties, and considerations for submitting a casualty After Action Review.



SLIDE 17 – CHECK ON LEARNING

Ask questions of the learners referring to key concepts from the module.

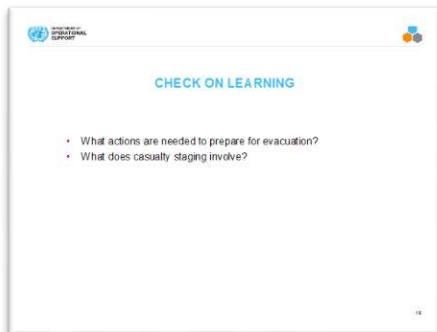
Now for a check on learning.

1. What actions are needed to prepare for evacuation?

- Secure casualty's equipment
- Prepare evacuation equipment
- Select and prepare a litter
- Package the casualty for evacuation

2. What does casualty staging involve?

- Be prepared for the arrival of the evacuation platform
- Stage the casualties in the loading sequence of the evacuation platform
- Use unit-specific tagging or color-coded chemlights to identify casualty evacuation categories
- Maintain security at the evacuation point in accordance with SOP

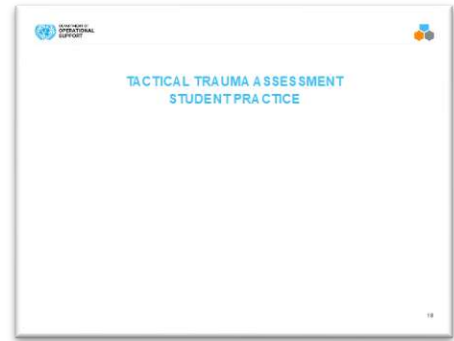


SLIDE 18 – QUESTIONS



SLIDE 19 – TACTICAL TRAUMA ASSESSMENT – STUDENT PRACTICE

At this time, we will break into our skill stations for the Tactical Trauma Assessment - Student Practice.



Annex A: United Nations Policy References

This manual was developed and delivered in accordance with the United Nations training framework, in particular:

- United Nations, Department of Peacekeeping Operations/Department of Field Support. *Policy. Operational Readiness Assurance and Performance Improvement* Ref. 2015.16
- United Nations, Department of Peacekeeping Operations/Department of Field Support. *Policy. Training for all United Nations Peacekeeping Personnel* Ref. 2010.20
- United Nations, Department of Peacekeeping Operations/Department of Field Support. *Standard Operating Procedure. Training of Trainers* Ref. 2009.24
- United Nations, Department of Peacekeeping Operations/Department of Field Support. *Guidelines. Design, Delivery and Evaluation of Training (Training Cycle)* Ref. 2014.3
- United Nations, Department of Peacekeeping Operations/Department of Policy Evaluation and Training. Integrated Training Service. Members States Support Team. *Standard Operating Procedures. Training of Trainers (DRAFT)* 2012

Annex B: AMENDMENTS

Number	Subject	Brief Description	Date of Effect

Annex C: Changes from TCCC to FMA

The UN equivalent to Tactical Combat Casualty Care (TCCC) = United Nations Tactical Combat Casualty Care (UN TCCC)

The UN equivalent to TCCC Combat Lifesaver = Field Medical Assistants (FMA)

The UN equivalent to the TCCC 9-Liner Medical Evacuation = UN Evacuation 4 Liner

The UN equivalent to TCCC DD Form 1380 = UN Casualty Card

The UN equivalent to TCCC CASEVAC (MEDEVAC & TACEVAC) = UN CASEVAC

The UN equivalent to TCCC Joint First Aid Kit (JFAK) = Buddy First Aid Kit (BFAK)

The UN equivalent to TCCC Combat Lifesaver Bag (CLS Bag) = UN Trauma Pack (UNTP)

The UN equivalent to TCCC Combat / Combatant = Peacekeeping / Peacekeeper

The UN equivalent to TCCC Combat Wound Medication Pack (CWMP) = Wound Medication Pack (WMP)

Annex D: Toolbox for Trainers

I. FMAC and Train-the-Trainer Course foundation and design

a. Course Overview

The FMAC Course is an intermediate course between Buddy First Aid and Unit Medic to provide an enhanced capability in saving life and improving outcome from non-medical personnel. As previously stated, the course is based heavily on the TCCC Combat Lifesaver Course. This Toolbox aims to provide Lead Trainers, Trainers, and Training Institutions with links to valuable resources for preparing and delivering the course. Due to the similarity between TCCC and UN TCCC the TCCC Deployed Medicine material and resources may be used but the differences between the two must be noted as listed at the beginning of this handbook.

b. Prerequisites

- i. Students: FMA Students are selected after passing the BFAC and receiving a recommendation from commanders. Students must be proficient in English.
- ii. Trainers: Lead Trainers will select FMAC Trainers from Training Staff within the host nation training facility and then further require them to view the TCCC Train the Trainer course online and participate in FMAC courses under a proctor, developing them to full FMAC Instructor Status. This is an internal process to the host nation Instructor Facility but may be assisted by other nation's Lead Trainers and FMAC Trainers.
- iii. Lead Trainers: Are selected by host nations, they then attend the UN Lead Trainers Workshop and deliver the FMAC in person under review, if successful they are then deemed Master Trainers.

c. Skill Framework

The Buddy First Aid Course is based heavily on the TCCC All Service Members Course and the Field Medical Assistants Course is based heavily on the TCCC Combat Lifesavers Course. The Skill Framework is almost identical between these courses with the exception being the BFAC and FMAC not having the TCCC approved Combat Wound Medication Pack.

Additional Information is available in the text above and in the FMAC Didactic Lessons. The links below show the corresponding TCCC ASM and CLS Course Syllabus.

- i. ASM Course Syllabus

The TCCC ASM Course Syllabus is a document used by a trainer to communicate information about the course to students. It provides an overview of the course, outlines learning objectives and criteria for successful course completion. It is meant to set expectations and clarify responsibilities in advance of the course.

<https://deployedmedicine.com/market/171/content/867>

ii. **CLS Course Syllabus**

The Tactical Combat Casualty Care for Combat Lifesaver (TCCC-CLS) course student syllabus is used to communicate information about the course. It provides an overview of the course and outlines learning objectives and criteria for successful course completion. It is meant to set expectations and clarify responsibilities in advance of the course.

<https://deployedmedicine.com/market/193/content/1191>

d. Trainer Responsibilities

It is the responsibility of the Host Nation Lead Trainer to ensure that the intended course is planned, staffed, and equipped prior to commencing the course. The students selected to attend the course meet the requirements described above and if possible are subjected to some form of pre-selection to ensure they are at a good BFAC standard and have the language skills prior to commencing the training.

e. FMAC Curriculum

The FMAC Curriculum is available to review in the Student FMAC Handbook the FMAC Didactic Lessons and the FMAC Instructor Handbook. The material from the Combat Lifesaver Course may also be reviewed, however the essential changes must be remembered that are listed at the start of this Handbook.

i. **CLS Core Modules**

<https://deployedmedicine.com/market/193/category/323>

ii. **Learning Objectives**

<https://deployedmedicine.com/market/193/content/1215>

II. Course Management

The Lead Trainer should engage in a co-planning process with other assistant trainers at least three weeks before the training event. To maintain the training standard established by the Joint Trauma System TCCC, and the United

Nations. It is critical that every trainer review the learning objectives and course materials (to include instructional videos) and begin acquiring and organizing/ordering medical supplies and equipment. Also, each trainer must review the curriculum and rehearse the skills and assessment techniques, independently and as a team, to ensure a consistent approach to training. All Instructors must have recently reviewed and be familiar with the TCCC CLS Train the Trainer Course.

TCCC CLS Train the Trainer Course

<https://deployedmedicine.com/market/226/content/1590>

TCCC CLS Train the Trainer Course – Course Management

<https://books.allogy.com/web/tenant/8/books/a61bf5f5-5e68-4232-ab11-7e8bfb0543ca/#idc85ec593-3a47-4625-8ee2-987987637acb>

a. Course Planning Aids

- i. **Course Map** is designed to provide a visual representation of the Tactical Combat Casualty Course (TCCC-CLS) course flow. The 20 modules that make up the TCCC-CLS course are outlined in this document, including the didactic presentations, speaker notes, videos and various skill assets that go with each module. This document is structured based on Fink's five principles of curriculum design (Fink, 2013). The goal is to develop learning experiences that are structured in such a way that they scaffold student thinking using a whole-part-whole educational strategy and progressively move them toward the desired course outcomes.

<https://deployedmedicine.com/market/193/content/1135>

- ii. **CLS Course Plan:** This teaching guide provides trainers with information to successfully manage and teach the Tactical Combat Casualty Care Combat Lifesaver (TCCC-CLS) course. The 20 modules that make up the course are outlined in this document, along with the following strategic assets: Course Management and Delivery, Feedback, Assessment, Remediation, and Debriefing Strategies. Also, the guide includes a suggested Course Map for trainers to use in their course planning.

<https://deployedmedicine.com/market/193/content/1214>

b. Instructional Strategies

- i. **Teaching guide for trainers**

TCCC CLS Train the Trainer – Instructional Strategies

<https://books.allogy.com/web/tenant/8/books/a61bf5f5-5e68-4232-ab11-7e8bfb0543ca/#idc85ec593-3a47-4625-8ee2-987987637acb>

- ii. **Didactics:** The FMAC Didactic Lessons are available to download from the UN and the TCCC version from Deployed Medicine.

TCCC CLS Didactics

<https://deployedmedicine.com/market/193/category/300>

- iii. **Speaker Notes:** The FMAC Speaker notes are available in the FMAC Instructor Handbook and on Deployed Medicine at; TCCC CLS Speaker Notes

<https://deployedmedicine.com/market/193/category/323>

c. Managing skill stations

- i. **Managing skill stations:** This is covered in the TCCC Train the Trainer Course.

<https://books.allogy.com/web/tenant/8/books/a61bf5f5-5e68-4232-ab11-7e8bfb0543ca/#idc85ec593-3a47-4625-8ee2-987987637acb>

- ii. **Skill cards:** are available at Deployed Medicine.

<https://deployedmedicine.com/market/193/category/290>

- iii. **Skill Instructions:** Are available at Deployed medicine.

<https://deployedmedicine.com/market/193/category/320>

- iv. **Skill Assessment Checklist:** Are available at Deployed Medicine.

<https://deployedmedicine.com/market/193/category/319>

d. Managing Scenarios

- i. How to create and manage scenarios is available at Deployed Medicine.

<https://books.allogy.com/web/tenant/8/books/a61bf5f5-5e68-4232-ab11-7e8bfb0543ca/#id407ef722-5566-43f3-8382-219a24f6d3fe>

e. Instructional videos

- i. Instructional Videos are available at Deployed Medicine.

<https://deployedmedicine.com/market/193/category/295>

f. Training materials

- i. **The student handbook** is the main student resource, additionally the students can be provided with links to the Deployed Medicine Instructional Videos.

- ii. **Student equipment** needs to be pre-ordered via the procurement system and is based around the United Nations Trauma Pack.

- iii. **Instruction Materials** need to be arranged by the Lead Trainer according to student numbers.

III. **Assessment, debriefing and remediation strategies**

- a. **Skill Assessment Checklists:** are available at Deployed Medicine.
<https://deployedmedicine.com/market/193/category/319>
- b. **Effective Feedback and Learner Assessment:** is available on the TCCC CLS Train the Trainer Course.
<https://books.allogy.com/web/tenant/8/books/a61bf5f5-5e68-4232-ab11-7e8bfb0543ca/#id074787cc-9e3c-4cb7-be57-cde3673de380>
- c. **Remediation techniques:** are available on the TCCC CLS Train the Trainer Course.
<https://books.allogy.com/web/tenant/8/books/a61bf5f5-5e68-4232-ab11-7e8bfb0543ca/#id0b8a1817-45db-40b2-8d4e-8435697c8ea2>
- d. **Debriefing strategies:** are available on the TCCC CLS Train the Trainer Course.
<https://books.allogy.com/web/tenant/8/books/a61bf5f5-5e68-4232-ab11-7e8bfb0543ca/#id2277da71-a5a6-4697-b87a-f4da94e06e77>
- e. **Final assessment**
The final assessment is a formative assessment of a full scenario where the student demonstrates the delivery of safe and effective UN TCCC/TCCC.

Annex E: ACKNOWLEDGEMENTS

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- k) Ruyffelaere, Farria, D & Wyper, R (2012). *UN Security Officers’ Emergency Trauma Bag (ETB) First Responder Manual (Rev. 2)*. New York, United Nations (UNDSS).
- j) <https://www.merckmanuals.com/home/drugs/administration-and-kinetics-of-drugs/drug-administration>



UN FIELD MEDICAL ASSISTANTS

Course Handbook

Second Edition 2023

Reviewed 07/2023



FORWARD

The operating environment faced by United Nations peacekeepers is increasingly demanding and volatile. Peacekeepers are exposed to risks such as being targets of malicious acts, and encounter injury, illness, and loss of life in their duties. In this environment, the importance of receiving effective medical treatment at the earliest possible time becomes critical.

The United Nations is committed to providing a consistent level of high-quality medical care to all mission personnel; regardless of the country, situation, or environment in which medical treatment is received. This care commences from the point of injury or illness and continues, if necessary, through to specialist surgical support. Prehospital care is a critically important step in this chain and may be the critical difference in casualty survivability.

The *United Nations Field Medical Assistants Course Handbook* is based heavily on the US Department of Defense, Joint Trauma System, Tactical Combat Casualty Care, Combat Life Saver Course. Content has been adapted to meet the specific and likely casualty environment of peacekeeping and humanitarian missions. This Training Manual sets out clear standards for Tactical Field Medical Aid.

In recognition of the language and resource variety across missions and nations, this Manual has been developed to enable you to apply your verified *Care Provider* skills in a manner which suits your national training environment and to provide the best training option for your unit, contingent or organization. By undertaking this course, you have committed to deliver Tactical Field Medical Aid and apply this for immediate treatment of casualties and until a higher level of medical care is available.

All competencies taught are then assessed through a practical activity which will demonstrate your ability to apply learnt concepts and skills sets and their application through a variety of casualty scenarios, giving the injured the best chance of survival.

CAVEAT: This Course Handbook has intentionally been drafted using basic English language in order to aide in training delivery across language barriers.

This handbook is intended as a memory aide, to guide the key learning points of the UN Field Care Provider's training and is therefore not intended as a stand-alone training resource.

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MODULE 1

PRINCIPLES AND APPLICATION OF UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

1. Introduction

- This course is based heavily on the United States Defense Health Agency, Joint Trauma System, Tactical Combat Casualty Care (TCCC), Combat Lifesavers Course.
- Adjustments have been made to comply with United Nations Policy.

1b. Adjustments

- The UN equivalent to Tactical Combat Casualty Care (TCCC) = **United Nations Tactical Combat Casualty Care (UN TCCC)**
- The UN equivalent to TCCC Combat Lifesaver = **Field Medical Assistant (FMA)**
- The UN equivalent to the TCCC 9-Liner Medical Evacuation = **UN Evacuation 4 Liner**
- The UN equivalent to TCCC DD Form 1380 = **UN Casualty Card**
- The UN equivalent to TCCC CASEVAC/MEDEVAC/TACEVAC = **UN CASEVAC**
- The UN equivalent to TCCC Joint First Aid Kit (JFAK) = **Buddy First Aid Kit (BFAK)**
- The UN equivalent to TCCC Combat Lifesaver Bag (CLS Bag) = **UN Trauma Pack (UNTP)**
- The UN equivalent to TCCC Combat / Combatant = **Peacekeeping / Peacekeeper**
- The UN equivalent to TCCC Combat Wound Medication Pack (CWMP) = **Wound Medication Pack (WMP)**

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ [You are HERE](#)

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **TO1 Given a combat or noncombat scenario, perform UN TCCC**
 - **EO1** Demonstrate the application of UN TCCC skills in a combat peacekeeping or non-combat peacekeeping scenario (Comprehensive Module Practical Exercise)
- **TO2 Describe the practice of UN TCCC**
 - **EO2** Identify the leading causes of preventable death due to traumatic injuries, and the corresponding interventions to help increase chances of survival
 - **EO3** Describe the UN TCCC Phases of Care, and how intervention priorities differ in each phase
 - **EO4** Describe the application of UN TCCC in combat peacekeeping and non-combat peacekeeping settings across different environments
 - **EO5** Describe the role and responsibilities of a nonmedical UN member in rendering UN TCCC care
 - **EO6** Identify the key factors influencing UN TCCC
 - **EO7** Identify the importance of UN TCCC training
 - **EO8** Identify three objectives (or goals) of UN TCCC

4. UN Mandate for Standardized Training

- Standardizes Field Medical Aid for all members
- Covers the use of standardized trauma training platforms

5. TCCC Online Resources

TCCC training and education resource is available at: **www.deployedmedicine.com**

It contains:

Videos, podcasts, and resources

Downloadable Clinical Practice Guidelines (CPGs)

6. What this Course Contains

- ❑ Principles and Applications of UN TCCC

- ☐ Medical Equipment
- ☐ Care Under Fire
- ☐ Tactical Trauma Assessment
- ☐ Massive Hemorrhage Control
- ☐ Airway Management
- ☐ Respiration Assessment and Management
- ☐ Circulation/Hemorrhage Control
- ☐ Shock Recognition
- ☐ Hypothermia Prevention
- ☐ Head Injuries
- ☐ Eye Injuries
- ☐ Analgesics and Antibiotics
- ☐ Wound Management
- ☐ Burns
- ☐ Fractures
- ☐ Casualty Monitoring
- ☐ Pre-evacuation Procedures
- ☐ Evacuation Procedures

7. Principles and Applications of UN TCCC

Video can be found at: www.deployedmedicine.com

8. Roles and Responsibilities of the Field Medical Assistant (FMA)

In a **Care Under Fire** situation the FMA:

- Must respond to suppression of hostile fire to minimize the risk of injury to personnel and minimize additional injury to previously injured UN members

In **Tactical Field Care** the FMAs:

- Must maintain security and situational awareness while continuing to tend to casualties and prepare for evacuation

9. Roles and Responsibilities of FMA (CONT.)

First Responder Care (Role 1)

The first medical care that UN personnel receive is provided at Role 1 (also referred to as unit-level medical care or self-aid, buddy aid, combat lifesaver, and/or medic care). This role of care includes:

- Immediate lifesaving measures and treatment for disease and non-battle injury (DNBI) or degradation of functional capability sustained by personnel and caused by factors other than those directly attributed to combat action

10. The Key Factors Influencing UN TCCC

- Hostile fire
- Tactical considerations
- Environmental considerations
- Wounding patterns
- Equipment constraints
- Delays in reaching higher levels of care
- Level of first responder training and experience

11. Importance of UN TCCC Training

UN TCCC focuses on identifying and treating the causes of preventable death on the battlefield.

- Bleeding from arm and leg injuries
- Junctional bleeding where an arm or leg joins the torso such as the groin
- Non-compressible bleeding such as a gunshot wound to the abdomen
- Tension pneumothorax (**air trapped in the chest that prevents breathing and circulation**)
- Airway problems

12. Three Goals of UN TCCC

1. Treat the casualty
2. Prevent additional casualties
3. Complete the mission

13. Enter Peacekeeping Operations

14. Three Phases of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

15. Phase 1: Care Under Fire

RETURN FIRE AND TAKE COVER

- Never attempt to rescue a casualty until hostile fire is suppressed
- Using available resources, ensure scene safety

DIRECT CASUALTY TO REMAIN ENGAGED

APPLY SELF-AID AND MOVE TO COVER *(if able)*

GAIN FIRE SUPERIORITY

MOVE TO CASUALTY

(if casualty is unable to move to cover)

16. Phase 1: Care Under Fire Cont.

APPLY TOURNIQUET TO CONTROL LIFE-THREATENING BLEEDING

- For life-threatening bleeding, place a tourniquet "high and tight" above the wound

CONTINUE TO MAINTAIN FIRE SUPERIORITY

MOVE CASUALTY

IMPORTANT CONSIDERATIONS:

Continuously assess risks and make a plan before moving a casualty

17. Phase 2: Tactical Field Aid MARCH PAWS

DURING LIFE-THREATENING

- **MASSIVE BLEEDING**
- **AIRWAY**

- **RESPIRATION**
- **CIRCULATION**
- **HYPOTHERMIA / HEAD INJURIES**

AFTER LIFE-THREATENING

- **PAIN**
- **ANTIBIOTICS**
- **WOUNDS**
- **SPLINTING**

18. Phase 2: Other Considerations of Tactical Field Care

TFC

- The casualty and the person rendering care are not under direct fire
- Intervention priorities should follow MARCH PAWS

LIMITED SUPPLIES

- Medical equipment and supplies awareness are limited to what is carried into the field by the FMA and the individual Service member

REMEMBER:

- Always use the casualty's Buddy First Aid Kit (BFAK) first
- TFC can turn into a CUF situation unexpectedly
- Personnel should maintain their situational awareness

19. Phase 3: Tactical Evacuation Care (TEC)

CASUALTY MONITORING

- Continue to reassess and monitor casualty

EVAC REQUEST

- Use UN Evacuation 4 Liner

COMPLETE REPORT

- **M**echanism of injury
- **I**njuries
- **S**ymptoms
- **T**reatment

CASUALTY PREP

- Prep Litter
- Prep Evac Equipment
- Pack Casualty

- Secure Items

PRE-EVAC PROCEDURES

- Complete Casualty Card

(4 Line Format)

Line	UN CASEVAC 4-LINE ALERT MESSAGE		
	DTG:		
1	LOCATION AND CALL SIGN	PLACE NAME / DESCRIPTION	A
		GPS GRID REFERENCE	B
		CALL SIGN OF INCIDENT SITE COMMANDER	C
2	INCIDENT DETAILS	WHAT HAS HAPPENED? (Shooting, road accident, explosion etc).	D
		HOW MANY CASUALTIES ARE THERE?	E
3	ACTIONS BEING TAKEN AT SCENE	TREATMENT BEING GIVEN AND PREPARATIONS FOR EVACUATION	
4	RESOURCES REQUIRED AT SCENE TO TREAT AND EVACUATE PATIENT	GROUND AMBULANCE, AIR EVACUATION, AMET	

20. In Summary

GOALS

- Treat the casualty
- Prevent additional casualties
- Complete the mission

Three PHASES of UN TCCC

1 CUF

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TFC

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness

- Triage casualties as required
- MARCH PAWS assessment

3 TEC

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

21. Check on Learning

- What are factors that influence UN TCCC?
- What are the phases of care in UN TCCC?
- What is the most essential treatment task in Care Under Fire?
- What is every first responder's role in Care Under Fire?
- What does MARCH PAWS stand for?

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

MODULE 2

MEDICAL EQUIPMENT

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **TO3** Describe the use of individual medical equipment components in accordance with UN TCCC Guidelines
 - **EO9** Describe the use of a first aid kit in accordance with UN policy.
 - **EO10** Identify the contents of an individual Buddy First Aid Kit (BFAK), and/or other UN specific first aid kits.
 - **EO11** Describe the general maintenance and resupply procedures for trauma materials in a first aid kit in accordance with UN guidelines.
 - **EO12** Identify the contents of a UN Trauma Pack (UNTP), and/or other UN-specific first aid kits.
 - **EO13** Describe the use of the components of a UN Trauma Pack (UNTP), in accordance with UN policy

4. Medical Supplies What you will need to provide Aid and Save a Life

Medic Pack: UN Trauma Pack (UNTP)

Individual: Buddy First Aid Kit (BFAK)

BE FAMILIAR WITH YOUR INDIVIDUAL AND UN/UNIT-SPECIFIC MEDICAL EQUIPMENT!

5. Content List

Medic Pack: UN Trauma Pack (UNTP) - See Handbook

Individual: Buddy First Aid Kit (BFAK) - See Handbook

6. Content Overview

TOURNIQUET: A device to stop **massive** bleeding

HEMOSTATIC GAUZE: Gauze rolls used to stop **major life-threatening** bleeding

EMERGENCY BANDAGE/ TRAUMA DRESSING: Elastic bandage used as a **pressure** dressing and/or **standard** dressing

7. Content Overview

NASOPHARYNGEAL AIRWAY (NPA) WITH WATER-BASED LUBRICANT:

Nonsterile, rubber tube-shaped device that can be **inserted into the casualty's nostril**

VENTED CHEST SEAL: Vented and adhesive chest seal for treating **penetrating wounds** to the **chest**

NDC 10-14 GAUGE 3.25" NEEDLE CATHETER: Catheter-over-needle device that can be inserted into the casualty's chest to **treat tension pneumothorax**

8. Content Overview

1. Moxifloxacin 400mg tablet
2. Meloxicam 15mg tablet
3. Acetaminophen x2 650mg

NOTE:

- **Each** of the three medications (in unit dosages) is contained in a **single blister pack**
- The Wound Medication Pack (**WMP**) is an **example of medication that might** be used **ONLY** for traumatic injuries and **ALL** penetrating injuries.
- **Drugs should only be administered by trained medical personnel**

9. Content Overview

GAUZE/PACKING DRESSING: Gauze rolls used to **stop minor bleeding** or as **bulky material** for packing wounds

ELASTIC BANDAGE: Stretchable bandage that **creates localized pressure used** for pressure dressings

10. Content Overview

ACTIVE/PASSIVE HYPOTHERMIA BLANKET: Used to prevent and manage hypothermia

11. Documentation

MILITARY ACUTE CONCUSSION EVALUATION (MACE2): Used for identifying **possible traumatic brain injury** (TBI)

12. Content Overview

RIGID EYE SHIELD: A shield that provides a domed **protection of eye injuries WITHOUT** applying pressure

MALLEABLE SPLINTING: Semirigid material that can be formed to the injured limb to assist in immobilizing

CRAVATS: Used to assist in immobilizing the injured limb or protrusion

13. Documentation

UN Evacuation 4 Liner: Call procedure that is divided into 4 lines of information for evacuation crews

Cas Card: UN Approved casualty card

14. Maintenance and Resupply

REMEMBER:

Regularly inspect your **BFAK, UNTP** and other service-specific medical kits:

- **BEFORE**
- **DURING**
- **AFTER**

ALL training events and missions

15. Maintenance and Resupply

Check to be sure all equipment is in the kit

Check **seals** and **wrappers**

- REPLACE items with **broken** or **unsealed** wrappers

Check **expiration** dates

- REPLACE if **expired** or the expiration date **DOES NOT** exceed your expected deployment timeframe

BEWARE OF EQUIPMENT THAT IS **NOT UN APPROVED!**

DO NOT DEPLOY WITH MISSING, PREVIOUSLY USED FOR TRAINING, OR EXPIRED EQUIPMENT

16. UN Trauma Pack

Always use the **casualty's** BFAK first

When supplies are exhausted from the casualty's BFAK, resort to using supplies from the UNTP

17. Skill Station

Familiarization with BFAK and UNTP

18. Summary

Familiarize yourself with the content of the UNTP and BFAK.

Ensure you are aware of the resupply procedures and how to maintain your equipment.

Regularly inspect your BFAK, UNTP, and other UN-specific medical kits:

- **BEFORE**
- **DURING**
- **AFTER**

ALL training events and missions.

Be sure to use proper documentation when needed; MACE2, 4-Line, and Casualty Card.

19. Check on Learning

- When providing "buddy aid," should you use your BFAK or the casualty's BFAK?
- What is the most important lifesaving item in the BFAK?
- When should medications and medical-grade equipment be replaced in the BFAK?

[illegible]

MODULE 3

Care Under Fire

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **TO4** Given a combat peacekeeping or non-combat peacekeeping scenario, perform Care Under Fire in accordance with UN TCCC Guidelines
 - **EO14** Describe the role of fire superiority and threat containment on UN TCCC.
 - **EO15** Describe the actions required before engaging with a casualty to prevent harm or additional casualties in accordance with UN TCCC guidelines.
 - **EO16** Identify appropriate actions and priorities to treat and move casualties in CUF.
 - **EO17** Identify the importance of early application of limb tourniquets to control life-threatening bleeding in CUF.
 - **EO18** Demonstrate one-handed tourniquet application to self in CUF.
 - **EO19** Demonstrate two-handed tourniquet application to a casualty in CUF.
 - **EO20** Describe the principles, advantages, and disadvantages of one-person drag/carry or two-person drag/carry in CUF.
 - **EO21** Demonstrate the one-person drags and carries of a casualty in CUF.
 - **EO22** Demonstrate two-person drags and carries of a casualty in CUF.

4. Three Phases of UN TCCC

1 CARE UNDER FIRE ⇐ You are **HERE**

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

5. Phase 1: Care Under Fire

RETURN FIRE AND TAKE COVER

- Never attempt to rescue a casualty until hostile fire is suppressed
- Using available resources, ensure scene safety

DIRECT CASUALTY TO REMAIN ENGAGED

APPLY SELF-AID AND MOVE TO COVER (*if able*)

GAIN FIRE SUPERIORITY

MOVE TO CASUALTY

(*if casualty is unable to move to cover*)

IMPORTANT CONSIDERATIONS:

- **Order of actions** will be dictated by the situation
- A casualty may be able to perform **self-aid**
- **Constantly ASSESS risks** and make a plan **before** moving a casualty

6. Role of Fire Superiority

Point of injury (POI)

1. Return fire and take cover
2. Gain fire superiority

7. Fire Superiority Principles

- **Order of actions** will be dictated by the situation
- Return fire **AND** take cover
- **Direct casualty** to remain engaged
- **Direct casualty** to apply self-aid and move to cover
- DO NOT approach casualty while casualty is **inside of a KILL ZONE**
- **Suppress** hostile fire to gain fire superiority

Place a tourniquet on life-threatening bleeding and get the casualty **OUT** of the **KILL ZONE** if they are unable to move

8. Casualty Self-Aid

- **Direct** casualty to return fire, **if able**
- Have casualty move to cover and apply self-aid

9. If Casualty is Unable to Move

If casualty is unable to move to cover, when **tactically feasible**, go to them **when** fire has been **SUPPRESSED** and fire superiority has been **GAINED** and **AID THEM IN MOVEMENT**

- Use rope, dragging straps, etc.

10. Phase 1: Care Under Fire

APPLY TOURNIQUET TO CONTROL LIFE-THREATENING BLEEDING

- For life-threatening bleeding, place a tourniquet (TQ) "**high and tight**" above the wound

MOVE CASUALTY

- Drag or carry based on **tactical situation**

11. Massive Bleeding in Care Under Fire

12. Care Under Fire Bleeding Control

Video can be found on DeployedMedicine.com

13. Identify Life-Threatening Bleeding

- **Bright red blood** is pooling on the ground
- The overlying clothes are **soaked** with blood
- There is a traumatic **AMPUTATION** of an **arm** or **leg**
- There is a **pulsatile** (pulsing) or **steady** bleeding from the wound

14. Time to Bleed Out

How long does it take to **bleed to death** from a **major artery injury**?
Casualties with such an injury can bleed to death in **as little as 3 MINUTES**

15. Know your Access to a Tourniquet

Have TQ available for self-application should you need one, **QUICK ACCESS IS KEY!**

- **DON'T** leave your TQ at the bottom of your pack!

CASUALTY'S BFAK FIRST

- When helping a buddy, **NEVER USE YOUR OWN TQ** before the casualty's
- Look for the TQ in the **casualty's BFAK**
- If the casualty does **NOT** have a TQ available, **then** use the TQ from the UNTP or the next available one

16. One-Handed Tourniquet Self-Application

One-Handed Application

The one-handed application is normally used to apply a UN TCCC-recommended windlass TQ to the **upper extremities** (upper arm or forearm)

WINDLASS TQ

- A **windlass** TQ is the TQ of choice; it is effective and can be applied quickly
- Use the windlass TQ from the BFAK

17. One-Handed Windlass Tourniquet Application

Video can be found on DeployedMedicine.com

18. One-Handed Tourniquet Application Critical Points

WINDLASS TQ

- TQ's are used to control massive or severe hemorrhage (bleeding) of an extremity (arms and legs)
- TQs are **effective** and can be **applied quickly**
- TQs are the most important lifesaving item in the BFAK and should be kept easily accessible
- When helping a buddy, **NEVER USE YOUR OWN tourniquet** before the casualty's

19. Buddy Aid if Casualty is Unresponsive or Unable to Move

Approach casualty and **conduct visual blood sweep** (looking for major bleeding)

If you see bleeding, apply a hasty (high and tight) TQ using a **two-handed method**

IMPORTANT CONSIDERATION: Be sure to use equipment (TQ) in the casualty's BFAK and not your own

20. Two-Handed Windlass Tourniquet Application

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

21. Skill Station

CUF Tourniquet (Skills)

- One-Handed (Windlass) TQ Application in CUF
- Two-Handed (Windlass) TQ Application in CUF

22. Extraction of Casualties

- Casualty to be extracted from vehicles and buildings per UN Standard Operating Procedure (SOP)
- **If casualties are on fire**, put out the fire **IMMEDIATELY**
- Move casualty to **relative safety** following the unit SOP

23. Critical Objectives for the One- or Two- Person Drag/Carry

- Once bleeding is controlled, move the casualty to cover using a one- or two-person drag/carry
- At the point of injury you must move your casualty to the closest position of cover

- If you must move a casualty under fire, then quickly develop a casualty movement rescue plan
- When moving casualties, spinal injuries are not to be a concern during Care Under Fire movements

24. One-Person Drag/Carry

SUPPORT CARRY should be used for a conscious casualty **only**

NECK DRAG also **limits** the casualty and rescuer from exposure to enemy fire

KIT OR ARM DRAG Some body armour is equipped with a drag handle; therefore, no additional equipment is required

CRADLE-DROP DRAG is effective in moving a casualty **up or down the stairs, steps, or short distances**

25. One-Person Drags & Carries

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

26. Two-Person Drag/Carry

The **TWO-MAN SUPPORTING CARRY** can be used in transporting both conscious and unconscious casualties

KIT OR ARM DRAG can cause Injury to either the rescuer or casualty during training drills; keep safety in mind

FORE AND AFT CARRY Exposes two rescuers to hostile fire instead of one

27. Two-Person Drags & Carries

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

28. Skill Station

Drag/Carry (Skills)

- One-Person Drag/Carry
- Two-Person Drag/Carry

29. Summary

- We defined Care Under Fire
- We discussed the importance of fire superiority
- We defined massive hemorrhage control methods

- We discussed casualty movement in CUF
- We discussed the advantages and disadvantages of one- and two-person drag/carry methods

30. Check on Learning

- What is Care Under Fire?
- What are the signs of life-threatening bleeding?
- How long does it take to bleed to death from a complete femoral artery and vein disruption?
- What are the advantages and disadvantages of one-person drags?
- What are the advantages and disadvantages of two-person carries?

[illegible]

MODULE 4

PRINCIPLES AND APPLICATION OF TACTICAL FIELD CARE (TFC)

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **TO5** Given a combat peacekeeping or non-combat peacekeeping scenario, perform Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO23** Identify the importance of security and safety in Tactical Field Care (TFC)
 - **EO24** Identify basic principles of removal/extraction of casualties from a unit-specific platform
 - **EO25** Identify the importance and techniques of communicating casualty information with unit tactical leadership and/or medical personnel
 - **EO26** Identify the relevant tactical and casualty data involved in communicating casualty information
 - **EO27** Identify Demonstrate communication of casualty information to tactical leadership and/or medical personnel (in accordance with UN and/or unit standard operating procedures in TFC)
 - **EO28** Identify triage considerations in TFC

4. Three Phases of UN TCCC

1 CARE UNDER FIRE ⇐ You are **HERE**

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

5. Casualty and responder no longer under effective enemy fire or threat enter into the tactical field care (TFC) phase

6. Phase 2: Tactical Field Care

TFC IS CARE RENDERED WHEN NO LONGER UNDER EFFECTIVE ENEMY FIRE OR THREAT

Having transitioned from **Care Under Fire (CUF)**, further **assessment** and **care** can be more **deliberate** following the **MARCH PAWS** sequence

This does **NOT** mean that the danger is over – the tactical situation could **change** back to CUF **AT ANY TIME**

IMPORTANT CONSIDERATIONS:

Mission personnel should **constantly maintain** their situational awareness of the **potential threat** from hostile forces

Tactical Field Care also encompasses combat/tactical environment not involving enemy fire (e.g., parachute injury in combat zone)

7. Security and Safety in Tactical Field Care

Establish a security perimeter in accordance with unit tactical standard operating procedures and/or battle drills

Maintain tactical situational awareness

CASUALTIES WITH ALTERED MENTAL STATUS SHOULD HAVE

- Weapons **cleared** and **secured**
- **Communications** secured
- **Sensitive** items redistributed
- **Weapons** and **radios DO NOT** mix well with shock or narcotics

8. Other Considerations

TFC is when the casualty and the person rendering care are NOT under direct fire

LIMITED SUPPLIES

Medical equipment and supplies are **LIMITED** to what is **carried** into the field by the FMA and the individual UN member

REMEMBER:

- Always use the **casualty's** BFAK **FIRST**
- TFC can turn into a CUF situation **unexpectedly**
- Personnel should **maintain** their situational awareness

9. Casualty Removal/Extraction Principles

- The first principle is safety. Safety is critical.
- The second principle of MARCH still applies. If possible, you may want to initiate lifesaving measures like applying a tourniquet before the extraction, and monitor them throughout the process.
- The third principle is training.

Extractions will vary based on the mission and vehicles located in your Area of Responsibility (AOR)

10. MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

CIRCULATION
HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN
ANTIBIOTICS
WOUNDS
SPLINTING

11. Communication

Communicate with the casualty, if possible

- Encourage
- Reassure
- **Explain care** each step of the way

Communicate with tactical leadership **IMMEDIATELY** on evacuation requirements

Continue to communicate with leadership on casualty treatment as needed

COMMUNICATE WITH EVACUATION AND MEDICAL ASSETS

Communicate with the evacuation system to coordinate evacuation using the **4-Line CASEVAC** request

Keep each casualty's Cas Card up to date

12. Communicate Relevant Casualty Data

Document ALL assessment and medical care (including interventions and medications) on the Casualty Card

Communicate with CASEVAC using the:

4-Line CASEVAC request form

MIST Report

Mechanism of injury

Injuries

Symptoms

Treatment

Relay the information following your standard operating procedures

COMMUNICATE CASUALTY DATA IN HAND-OFF WITH MEDIC OR CASEVAC

When handing casualty off to medic or CASEVAC, read off the Casualty Card, including any additional information as needed

MIST report may **change** as the **casualty status** and **interventions** performed change

13. Triage – Prioritizing Multiple Casualties

Casualties with these injuries must be treated first:

- #1 **Massive bleeding**
- #2 **Penetrating** trauma into the box (torso)
- #3 **Airway** compromise
- #4 **Respiratory** distress
- #5 Altered mental status

14. Triage Considerations

- Casualties may need to be sorted into prioritized treatment groups
- The FMA may be required to assist medical personnel with urgent casualties, monitor casualties after emergency interventions, and may be tasked with preparing casualties for evacuation

15. Summary

- Ensure you are aware of all security and safety procedures for TFC
- Tactical Field Care is when the casualty and the responder are both no longer under effective enemy fire or threat
- Security and safety in TFC is a priority; clear and secure weapons and communications
- Understand the principles of casualty extractions in accordance with unit standard operating procedures
- Always follow the MARCH PAWS procedure during life-threatening and after life-threatening injuries

16. Check on Learning

- What is the difference between the TFC and CUF phases?
- True or False: During TFC, the tactical situation could change back to CUF again at any time.
- What is MARCH PAWS?

[illegible]

MODULE 5

TACTICAL TRAUMA ASSESSMENT (TTA)

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **TO6** Given a combat peacekeeping or non-combat peacekeeping scenario, perform Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO29** Demonstrate the techniques used to assess a casualty for responsiveness.
 - **EO30** Identify the common causes of altered mental status in combat peacekeeping or non-combat peacekeeping environments
 - **EO31** Identify the importance of disarming and securing communications equipment of a casualty with altered mental status
 - **EO32** Identify the importance and techniques of communicating with a casualty in TFC
 - **EO33** Demonstrate communicating with a casualty in TFC
 - **EO34** Demonstrate application of body substance isolation (BSI) in TFC
 - **EO35** Demonstrate a TTA in the proper order using the MARCH PAWS sequence in accordance with UN TCCC Guidelines
 - **EO36** Demonstrate the appropriate actions and interventions used during a casualty assessment to render aid to the casualty in accordance with UN TCCC Guidelines

4. MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

5. Tactical Trauma Assessment

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

6. Tactical Trauma Assessment “Fire Flight Conscious Casualty”

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

7. Tactical Trauma Assessment “Explosion Unconscious Casualty”

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

8. Body Substance Isolation (BSI)

Whenever possible, the responder should don latex-free gloves as a precaution

9. Casualty Blood Sweep

Your initial casualty evaluation should be a rapid head-to-toe check for any unrecognized life-threatening bleeding

- Check the neck, axillary (armpit), inguinal (groin)
- Check the legs, arms, abdomen, chest (in a raking motion) and back

10. Quickly Identify Massive, Life-Threatening Bleeding

M A R C H

BRIGHT RED BLOOD is pulsing or spurting, or there is steady bleeding from the wound

BRIGHT RED BLOOD is pooling on the ground

Overlying clothing or ineffective bandaging is becoming **SOAKED WITH BLOOD**

AMPUTATION of the arm or leg

IMPORTANT! Casualties with severe injuries can bleed to death in *as little as 3 minutes*

11. Hemorrhage Control

Assess for other sources of hemorrhage, and control all life-threatening bleeding

If not already done, where appropriate, use a UN TCCC recommended limb tourniquet (TQ) to control life-threatening external hemorrhage, applying it 2-3 inches above the source of bleeding, directly on the skin

Reassess CUF interventions, and If bleeding is not controlled with the first TQ, apply a second TQ side-by-side with the first

12. Identifying Obstructed Airway

M A R C H

IMPORTANT! Remove any visible objects, but do not perform a blind finger sweep

SIGNS AND SYMPTOMS AIRWAY MAY BE BLOCKED:

- Casualty is in distress and indicates they can't breathe properly
- Casualty is making snoring or gurgling sounds
- Visible blood or foreign objects are present in the airway
- Maxillofacial trauma (severe trauma to the face) is observed

13. In a **casualty without an airway obstruction, you can perform the following manoeuvres:**

HEAD-TILT CHIN-LIFT

JAW THRUST

Unconscious casualty's tongue may have relaxed, causing the tongue to block the airway by sliding to the back of the mouth and covering the opening to the windpipe

If you suspect that the casualty has suffered a neck or spinal injury, use the jaw-thrust method

14. Managing the Airway

IF the casualty is breathing on their own but unconscious or semiconscious **AND** there is no airway obstruction, further airway management is best achieved with a nasopharyngeal airway (NPA)

An NPA can be used on a conscious or unconscious casualty to help open/maintain an open airway

15. Management/Recovery Position

Casualties with **severe facial trauma** can often protect their own airways by sitting up and leaning forward

Assist a conscious casualty by helping them assume any comfortable sitting-up position that **ALLOWS THEM TO BREATHE EASILY**

For an unconscious casualty not in shock, place them into the **RECOVERY POSITION**

16. Respirations

M A R C H

Breathing rate (Monitor respirations)

Level of consciousness

17. Life-Threatening Chest Injury

Expose the chest to assess for:

- Gunshot or shrapnel wound
- Blunt-force trauma
- Bruising or contusions
- Any deformities of the chest

If penetrating trauma is found or identified, apply a chest seal (vented, if available)

18. Reassess Treatments

M

Reassess **ALL** treatment for **M**assive haemorrhage

A

Reassess **A**irway

R

Reassess **R**espirations

19. General Indicator of Shock

M A R C H

SIGNS AND SYMPTOMS OF SHOCK INCLUDE:

- ☐ Mental confusion
- ☐ Rapid breathing
- ☐ Sweaty, cool, clammy skin
- ☐ Pale/grey skin
- ☐ Weak or absent radial pulse
- ☐ Nausea
- ☐ Excessive thirst
- ☐ Previous severe bleeding

20. Hypothermia Prevention

M A R C H

Place the casualty on an insulated surface as soon as possible

- Hypothermia is much easier to prevent than to treat! Begin hypothermia prevention as soon as possible
- Decreased body temperature interferes with blood clotting and increases the risk of bleeding
- Blood loss can cause a significant drop in body temperature, even in hot weather

REMEMBER: Hypothermia is an issue even in hot environments and must be prevented

21. If a Penetrating Eye Injury is Noted or Suspected

Do not cover both eyes unless both eyes are injured

- In the absence of an eye shield, consider using tactical eyewear

22. Wound Medication Pack (WMP)

MARCH PAWS

Acetaminophen is used for pain management

Meloxicam can give significant pain relief and will not alter the casualty's mental status

MARCH PAWS

Moxifloxacin contains oral antibiotic medication

Remember:

- Medics carry medications
- Document all medications administered on the UN Casualty Card

23. Inspect and Address Known Wounds

MARCH PAWS

Dress all known wounds and then assess all applied bandages for:

- Increased pain
- Skin discoloration
- Irregular pulse

If any of these conditions are found, they might indicate an emergency!

Ensure the applied bandage isn't too tight; loosen as needed while keeping the bleeding controlled

DO NOT EVER APPLY IT AND FORGET IT!

24. Burn Care

EXTRACT

Extract from burning vehicle, building, or area

STOP THE BURNING PROCESS

COVER

Cover the burn area with dry, sterile dressings for general burns

WHITE PHOSPHORUS = WET DRESSING

Eliminate wound contact with oxygen

Be sure to assess MARCH before burn care

25. Assess for a Fracture

CLOSED FRACTURE

OPEN FRACTURE

WARNING SIGNS OF A FRACTURE:

- Significant pain and swelling
- An audible or perceived “snap”
- Different length or shape of limb
- Loss of pulse or sensation in the injured arm or leg (check pulse before and after treatment)
- Crepitus (hearing a crackling or popping sound under the skin)

26. Communication

Communicate with the casualty and if possible:

- Encourage
- Reassure
- Explain care each step of the way

Communicate with tactical leadership as soon as possible with status and evacuation requirements throughout casualty treatment as needed

COMMUNICATE WITH EVACUATION AND MEDICAL ASSETS

- Communicate with the evacuation system to coordinate CASEVAC using the 4-Line TCEVAC request
- Keep the Casualty Card

27. Phase 2: Tactical Evacuation Care

CASUALTY MONITORING Continue to reassess and monitor casualty

EVAC REQUEST Use 4-Line format

CASUALTY PREP

- Secure items
- Prep litter
- Prep evac equipment
- Pack casualty

COMPLETE MIST REPORT

M Mechanism of injury

I Injuries

S Symptoms

T Treatment

PRE-EVAC PROCEDURES

- Complete Casualty Card

28. Trainer-Led Demonstration

29. Summary

- We defined Tactical Trauma Assessment
- We discussed assessing the casualty using MARCH PAWS
- We discussed proper communication and documentation

30. Check on Learning

- During which phase of care is the TTA performed?
- What mnemonic is used to prioritize care during the TTA?
- What is a blood sweep?

\

Notes

MODULE 6

Massive Hemorrhage Control

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are [HERE](#)

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **TO7** Given a combat peacekeeping or non-combat peacekeeping scenario, perform massive hemorrhage control during Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO37** Identify life-threatening hemorrhage (bleed)
 - **EO38** Identify the importance of early application of limb tourniquets to control life-threatening bleed
 - **EO39** Identify anatomical sites for applying direct and indirect pressure to control bleeding
 - **EO40** Demonstrate the appropriate application of a UN TCCC-recommended limb tourniquet
 - **EO41** Identify risks associated with applying an improvised limb tourniquet
 - **EO42** Demonstrate the application of a UN TCCC-recommended hemostatic dressing
 - **EO43** Demonstrate an evaluation of previously applied tourniquets for hemorrhage control effectiveness
 - **EO44** Demonstrate improvised junctional hemorrhage control with hemostatic dressing and direct pressure

4. Three Phases of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE ⇐ You are HERE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

5. MARCH PAWS

DURING LIFE-THREATENING

➤ **MASSIVE BLEEDING** #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

6. Hemorrhage Control in Tactical Field Care

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

7. Security and Safety in Tactical Field Care

- **Establish** a security perimeter in accordance with UN tactical standard operating procedures (SOPs) and/or battle drills
- **Maintain** tactical situational awareness

CASUALTIES WITH ALTERED MENTAL STATUS SHOULD HAVE

- **Weapons** cleared and secured
- **Communications** secured
- **Sensitive items** redistributed
- **NOTE:** Weapons and radios **DO NOT** mix well with **shock** or **narcotics**

8. Prioritizing Multiple Casualties

Casualties with these injuries must be treated first:

- #1 **Massive bleeding**
- #2 **Penetrating** trauma into the box (torso)
- #3 **Airway** compromise
- #4 **Respiratory** distress
- #5 **Altered** mental status

9. Early Control of Severe Hemorrhage is Critical

- There is **pulsatile** (pulsing) or **steady** bleeding from the wound
- **BRIGHT RED BLOOD** is pooling on the ground
- The **overlying clothes** are **SOAKED** with blood
- Bandages or makeshift bandages used to cover the wound are **INEFFECTIVE** and steadily becoming **soaked** with blood
- There is a traumatic **amputation** of an arm or leg

10. Massive Hemorrhage Reassessment

- **Reassess** any interventions performed in CUF
- If a tourniquet was previously applied, **assess** for effectiveness (bleeding has stopped and distal pulses are absent)
- If **ineffective**, apply a second tourniquet **side-by-side** with the first
- Perform a **blood sweep** and **expose** the casualty to look for other **life-threatening bleeding**, stopping to immediately treat anything identified, and look for non-life-threatening bleeding to address later

11. Tools for Life-Threatening Hemorrhage Control

- Direct pressure
- Gauze/other dressings and pressure bandages
- UN TCCC-recommended tourniquet
- Pressure Delivery Device (PDD)
- Hemostatic dressing and pressure bandages

12. Initial Direct Pressure Before Intervention

- **Direct pressure** can and should be used as a temporary measure **until** a **tourniquet or dressing is in place**
- It is difficult to use direct pressure alone to control significant bleeding or while moving the casualty
- Direct pressure can be **used** if a treatment no longer maintains control of the bleeding **while a new treatment is started**

13. Tourniquets

- A device stopping the flow of blood to an arm or leg by applying circumferential (around) pressure to the limb
- The TQ that should be used as the **FIRST option** is the **CASUALTY'S TQ** from **THEIR own BFAK**
- If this is not possible, or more than one tourniquet is needed, then you may apply the TQ from your own BFAK or a TQ from unit mission equipment
- You should have a **new TQ** in your BFAK. It is designed as a **ONE-TIME USE DEVICE**

14. Deliberate Tourniquets

- A TQ applied in CUF should be reassessed
- A TQ applied in TFC will be a **deliberate TQ, applied 2-3 inches above the wound**, directly on the skin (not over clothing)
- In TFC the **source of bleeding** can be **identified** to ensure that TQs are properly placed
- TQs applied during CUF are **sometimes inadequate** due to the inability to properly expose and assess the wound, and application of an additional **side-by-side** TQ may be necessary

15. Tourniquets in Tactical Field Care

- Use a TQ to control life-threatening external hemorrhage that is anatomically amenable to TQ 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 TQ, apply a second TQ **side-by-side** with the first

- Time should be documented during the TFC phase, not the CUF phase
- **TQs need to be applied rapidly.** The bleeding should be stopped **WITHIN ONE MINUTE** and the TQ fully secured within three minutes
- TQ application time is **important** in helping medical personnel manage TQs

16. Tourniquets Effectiveness Checks

TQs can be assessed for effectiveness by:

- Ensuring that the **BLEEDING HAS STOPPED**
- Checking a pulse **distally** (further out) on the limb where the TQ is applied to ensure there is **NO PULSE**

17. Two-Handed Windlass Tourniquet

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

18. Tourniquet Pitfalls/Mistakes

- **NOT** using one when you should or waiting too long to put it on
- **NOT** pulling all the slack out before tightening
- **NOT** making it tight enough – the TQ should stop the bleeding AND eliminate the distal pulse
- **NOT** using a second TQ, if needed
- Using a TQ for minimal bleeding; however, **when in doubt**, apply a TQ
- Putting it on too proximally (too high) if the bleeding site is clearly visible
- Loosening TQs for a period to allow recirculation of a limb
- Taking it off (this should be performed **ONLY** by **medical personnel** at a **higher level of care**)
- **DON'T** put TQs over joints!

19. Don't Use an Improvised Tourniquet!

- If no TQ is available, **pack the wound** and hold **direct pressure** over the main source of bleeding

RISKS ASSOCIATED WITH IMPROVISED TOURNIQUETS:

- **DAMAGE** may occur to skin if the band is too narrow
- Bleeding may **WORSEN**
- Bleeding **MAY NOT BE COMPLETELY CONTROLLED**
- An improvised TQ may likely **LOOSEN** over time from not being properly secured

20. Skill Station

TFC Hemorrhage Control (Skills)

- Two-Handed Windlass Tourniquet Application in TFC

21. Hemostatic Dressing

- UN TCCC-recommended hemostatic dressing is safe and contains active ingredients that assist with blood-clotting at the bleeding site
- Hemostatic dressing can also be used for controlling bleeding in conjunction with tourniquets
- A BFAK contains one hemostatic dressing and one dry sterile gauze

22. Hemostatic Dressing

- **Hemostatic dressing with or without** a pressure bandage **CAN** be used to control compressible junctional hemorrhage
- For compressible (external) hemorrhage not amenable to limb TQ (places where a tourniquet cannot be effectively applied) or for bleeding from wounds not requiring a TQ, use a UN recommended hemostatic dressing

Remember:

- **DO NOT** pack hemostatic dressing into the abdomen or chest
- A BFAK contains one hemostatic dressing and one dry sterile gauze

23. Wound Packing

- Identify the **exact source** of bleeding and **APPLY direct pressure** as a **temporary** measure **UNTIL** gauze is placed
- Pack the wound, **maintaining CONSTANT** direct pressure at the source of bleeding within **90 SECONDS** for it to be effective
- **HOLD** direct pressure on the gauze over the wound for at least **3 MINUTES (this is necessary)**, even with the active ingredient in hemostatic dressing)
- When packing a large wound, more than one hemostatic dressing and/or **additional** gauze may be **needed**
- Carefully **observe** to determine if bleeding has been **controlled**
- Once you are sure the bleeding has stopped, apply a pressure bandage

24. Wound Packing for Failed Control

- If packed with hemostatic dressing, **remove** before packing material and **repack** with a new hemostatic dressing, as available
- It may be a **fresh** dressing of the **same** or **different type**

- Alternatively, additional **hemostatic** or **nonhemostatic dressing** **CAN** be applied on top of the first gauze
- If hemostatic dressing is **NOT** readily available, use dry sterile gauze or some other materials to pack the wound

25. Pressure Bandages

- **ALL** dressings for **significant** bleeding **should be secured** with pressure bandages
- Place the bandage pad **directly** on the dressing, **continuing to apply direct pressure**
- Wrap the pressure/elastic bandage **tightly**, focusing pressure directly over the wound
- **SECURE** the hooking **ends** of the Velcro or closure bar onto the last wrap of the bandage

26. Pressure Bandage Assessment

Key Points:

- Check for **circulation** **BELOW** the pressure bandage by **feeling for distal pulse** (a pulse below the bandage)
- If the **skin** **BELOW** the pressure bandage becomes **cool** to the touch, **bluish**, or **numb**, or if the **pulse** below the pressure dressing is **no longer present**, the pressure bandage may be **too tight**
- If circulation is **BLOCKED** or **STOPPED**, **loosen** and retie the bandage
- Dressings and bandages should be **reassessed** and checked routinely and **EVERY TIME** a casualty is moved

27. Pressure Bandage

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

28. Junctional Anatomy

- Junctional areas are located at the **junction of the extremities** and **neck** with the torso
- Junctional hemorrhage can also occur on the extremities if the **injury** is **TOO CLOSE** to the torso for a tourniquet to be applied
- Blood vessels at **junctional areas** are **LARGER** than in the limbs but can **still be COMPRESSED** with direct pressure

29. Neck Junctional Hemorrhage Control

- **Pack** the wound
- **Apply pressure** for **3 MINUTES**
- **Secure** with bandage
- If the bandage has a pressure bar, **pull the bandage TIGHT**, and reverse it back over the top of the pressure bar, **forcing** it **down** onto the pad

30. Neck Junctional Hemorrhage Control

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

31. Axillary Junctional Hemorrhage Control

- **Expose** the wound
- **Pack** the wound
- **Secure** the dressing in place
- **Swath** the (injured side) upper arm to the side of the chest using a **cravat**

32. Axillary Junctional Hemorrhage Control

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

33. Junctional Hemorrhage Control with a Pressure Delivery Device (PDD)

- A PDD is made by using such materials as a **shoe/boot, full water bottle, or canteen**
- For groin injuries packed with hemostatic dressing, use an improvised junctional PDD to **SECURE** the **gauze**
- The PDD is placed in the inguinal gutter while **CONTINUOUSLY MAINTAINING pressure** to the gauze
- The PDD is then **secured** with a tourniquet and **tightened** to add **ADDITIONAL** pressure
- You may need to put **two TQs TOGETHER** when improvising a PDD

34. Pressure Delivery Device (for Junctional Hemorrhage)

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

35. Skill Station

TFC Hemorrhage Control (Skills)

- Wound Packing with hemostatic dressing and Pressure Bandage
- Neck Junctional Hemorrhage Control
- Axillary (Armpit) Junctional Hemorrhage Control
- Inguinal (Groin) Hemorrhage Control with Improvised Junctional Pressure Delivery Device (PDD)

36. Summary

Pressure bandages over areas like the:

- Base of the neck
- Axilla
- Groin
- Buttocks
- Perineum
- Junctional areas have **specific** application techniques that **MAXIMIZE** the amount of pressure they exert on the gauze
- **Recheck** the dressing **FREQUENTLY**, especially while transporting the casualty to **next level of care**
- **WATCH FOR RE-BLEEDING**

37. Check on Learning

- What is the proper distance a deliberate tourniquet should be placed from the bleeding site in TFC?
- What is the difference between the need for high & tight/hasty tourniquets in CUF as opposed to deliberately placed tourniquets in TFC?
- How long should direct pressure be applied on packed hemostatic dressings?
- Why is it important to check the pulse after applying a pressure bandage?
- What additional intervention beyond packing with hemostatic dressing and wrapping with a pressure bandage is necessary to stop the bleeding from a groin wound?

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MODULE 7

Airway Management

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **TO8** Given a combat peacekeeping or non-combat peacekeeping scenario, perform airway management during Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO45** Identify signs of an airway obstruction
 - **EO46** Demonstrate opening the airway with the head-tilt chin-lift or jaw-thrust maneuver
 - **EO47** Demonstrate the placement of a casualty in the recovery position in Tactical Field Care
 - **EO48** Demonstrate the insertion of a nasopharyngeal airway (NPA) into a casualty in Tactical Field Care
 - **EO49** Describe the technique for ventilating a casualty with a bag valve mask (BVM) in Tactical Field Care

4. **MARCH PAWS**

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority



AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

5. **Airway Management**

- Airway obstruction on the battlefield is often due to maxillofacial trauma
- If the casualty is breathing on their own but **unconscious** or **semi-conscious**, and there is no airway obstruction, further airway
- management is achieved through a **Nasopharyngeal Airway (NPA)**
- **Unconscious** casualties can also lose their airway as the muscles of their tongue may have relaxed, causing the tongue to block the airway by sliding to the back of the mouth and covering the opening to the windpipe

6. **Identifying Obstructed Airway**

MARCH

IMPORTANT! Remove any visible objects, obstructing the airway, but do not perform a blind finger sweep

SIGNS AND SYMPTOMS AIRWAY MAY BE BLOCKED:

- Casualty is in distress and indicates they can't breathe properly
- Casualty is making snoring or gurgling sounds
- Visible blood or foreign objects are present in the airway
- Maxillofacial trauma (severe trauma to the face) is observed

7. **In a Casualty Without a Foreign Body Airway Obstruction, You Can Perform the Following Maneuvers:**

HEAD-TILT CHIN-LIFT

JAW THRUST

Unconscious casualty's tongue may have **relaxed**, causing the tongue to **BLOCK** the airway by sliding to the back of the mouth and **covering the opening to the windpipe**

If you suspect that the casualty has suffered a neck or spinal injury, use the jaw-thrust method

8. Head-Tilt/Chin-Lift and Jaw-Thrust Manoeuvre

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

9. Skill Station

Airway (Skills)

- Head-Tilt/Chin-Lift
- Jaw-Thrust Maneuver

10. Managing the Airway

IF the casualty is breathing on their own but **unconscious** or **semi-conscious** **AND** there is no airway obstruction, further airway management is best achieved with a **nasopharyngeal airway (NPA)**

An **NPA** can be used on a **conscious** or **unconscious** casualty to help open/maintain an open airway

DO NOT attempt to insert an NPA if there is clear fluid coming from the nose or ears. This may be cerebrospinal fluid (CSF) and may be an indication of possible skull fracture.

11. Nasopharyngeal Airway

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

12. Casualty Positioning

- If a casualty **can breathe on their own**, let them assume the best position that allows them to breathe, including sitting up
- If a casualty **can breathe on their own in a position of choice**, **DO NOT** force them into a position or perform airway procedures that causes them difficulties in breathing

13. Maintaining the Airway/Recovery Position

Casualties with **severe facial injuries** can often protect their own airways by sitting up and leaning forward

Assist a **conscious** casualty by helping them assume **any position** that **ALLOWS THEM TO BREATHE EASILY**, including sitting up

For an **unconscious** casualty not in shock, place them into the **RECOVERY POSITION**

14. Casualty Unable to Breathe on Their Own

- **Medical personnel** may ask you to assist them in ventilating a patient using a **bag valve mask (BVM)**
- If respirations are noted to be reduced, provide ventilator support with BVM ventilations
- A BVM is a device that can assist a casualty with breathing (ventilation) if they are **NOT** breathing adequately on their own

15. Bag Valve Mask (BVM)

ONE & TWO-PERSON BAG VALVE MASK (BVM) VIDEO

Video can be found on DeployedMedicine.com

- Ventilations can be performed alone or with two people working together
- The mask is **sealed** over the casualty's mouth so that air **doesn't** escape
- Squeeze **firmly** for **1-2 seconds** and **5-6 seconds** apart

16. Skill Station

Airway (Skills)

- Recovery Position
- Nasopharyngeal Airway (NPA)
- One-Person Bag Valve Mask (BVM)/Two-Person BVM

17. Summary

- **We identified**
- **We opened**
- **We maintained and managed**
- For casualties in which airway positioning and/or nasopharyngeal airways **DO NOT** successfully maintain an open airway, **notify medical personnel IMMEDIATELY**

18. Check On Learning

- What is the best position for a conscious casualty who is breathing on their own?
- Why are casualties placed in the recovery position?
- What are the two methods that can be used to open an airway?
- How does an NPA provide an open (patent) airway?

[illegible]

MODULE 8

Respiration Assessment and Management

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **TO9** Given a combat peacekeeping or non-combat peacekeeping scenario, perform assessment and management of respiration and chest trauma during Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO50** Identify the signs and symptoms of respiratory distress
 - **EO51** Identify the signs and symptoms of a life-threatening chest injury
 - **EO52** Identify the signs and symptoms of open pneumothorax (sucking chest wound) in Tactical Field Care
 - **EO53** Identify the importance and implications of vented and non-vented chest seals
 - **EO54** Demonstrate the application of a chest seal to an open chest wound
 - **EO55** Identify the signs, symptoms, and initial treatment of tension pneumothorax in Tactical Field Care
 - **EO56** Demonstrate a needle decompression of the chest at the second intercostal space in midclavicular line
 - **EO57** Demonstrate a needle decompression of the chest at the fifth intercostal space in the anterior axillary line
 - **EO58** Identify the signs of recurring or unsuccessful treatment of tension pneumothorax

4. MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

➤ **RESPIRATION**

CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

5. Respiration Assessment and Management in Tactical Field Care

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

6. Life-Threatening Chest Injury

- Respiratory distress means **DIFFICULTY BREATHING** (rapid or abnormally slow breathing), in other words, it is difficult for the casualty to **get air in or out**
- The pleural space between the lungs and chest wall naturally has negative pressure, which helps the lungs to collapse (exhale) and expand (inhale)
- With either a **BLUNT** or **PENETRATING INJURY** to the chest wall or lungs, air may counteract the lung's natural tendency to expand and collapse
- This is due to positive pressure replacing negative pressure
- It results in air being trapped in the pleural space, putting pressure on the affected lung
- This forces the lung to collapse and reduces the ability to get oxygen to the body

7. Life-Threatening Chest Injury

M A R C H

Gunshot or shrapnel wound to the chest (penetrating trauma)

- **Blunt force** trauma (force from an IED explosion, high-impact vehicle accident (chest hitting steering wheel), etc.
- **Bruising, contusions** (swelling around the chest, back or rib cage), **crepitus** that is felt or heard (crackling, popping, grating)

- **ANY** deformities of the chest

REMEMBER:

- These injuries can lead to a tension pneumothorax
- This is the **second leading cause** of preventable death

8. Identifying Tension Pneumothorax

Remember! Airway and Respiration are NOT addressed in CUF and must be addressed in TFC

SIGNS AND SYMPTOMS OF PROGRESSIVE RESPIRATORY DISTRESS:

- **Progressive** difficulty breathing (labored and rapid breathing worsening overtime)
- **Shortness** of breath
- Confusion/lightheaded and/or agitation due to lack of oxygen
- Bluish discoloration around mouth and lips
- Rapid pulse
- Distended jugular veins

9. Signs and Symptoms of Open Pneumothorax or Sucking Chest Wound In TFC

A casualty with an open chest wound will exhibit **ONE OR MORE** of the following signs and symptoms:

- A “**sucking**” or “**hissing**” sound when the casualty **inhales**
- Difficulty breathing
- A **puncture wound** of the chest
- **Froth** or **bubbles** around the injury
- Coughing up blood
- Blood-tinged sputum (spit)

REMEMBER:

- If you are **not sure** if the wound has **penetrated** the chest wall completely, **treat the wound** as though it were an **open chest wound**
- If **multiple** wounds are found, treat them **in the order in which you find them**

10. Vented Chest Seals

- Vented chest seals are for **treating penetrating wounds** to the chest
- Vented chest seals allow air to **escape** out of the chest while non-vented chest seals **do not**
- The injured lung will remain partially collapsed, **but the mechanics of respiration will be better**

11. Vented and Non-vented Chest Seals

Recommended treatment for **open** or **sucking** chest wounds is **prompt application** of a vented chest seal:

- If vented chest seal **is NOT** available, a non-vented chest seal should be used
- Vented chest seals allow air to **escape** out of the chest while non-vented chest seals **do not**
- When the casualty inhales, the plastic should be sucked against the wound, **preventing the entry of air**
- When the casualty exhales, trapped air should be able to escape from the wound and out the valve

MONITOR the casualty **closely** and if their condition MA RR C H **worsens**, you should **suspect a tension pneumothorax**.

Treat this by burping or temporarily removing the dressing.

12. Position After Occlusive Dressing Treatment

- If the casualty is unconscious, place the casualty in the recovery position
- If the casualty is conscious, allow the casualty to adopt the sitting position if breathing is more comfortable

13. Chest Seal

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

14. Skill Station

Respiration (Skill)

- Chest Seal

15. Tension Pneumothorax

- A tension pneumothorax is the **second-leading cause** of preventable deaths on the battlefield
- As a tension pneumothorax develops, air enters the chest cavity **through the wound WITH EVERY BREATH**
- Injured lung tissue acts as a **one-way valve**, **TRAPPING more and more air between the lung and the chest wall**

PRESSURE BUILDS UP AND COMPRESSES BOTH LUNGS AND THE HEART

16. Consider Tension Pneumothorax in Tactical Field Care

Caused by **SIGNIFICANT TORSO TRAUMA** or primary blast injury followed by **severe/progressive respiratory distress** (a respiratory rate **>20 breaths per minute**)

- The recommended treatment of suspected tension pneumothorax is **Needle Decompression of the Chest (NDC)**

17. Unsuccessful Treatment or Recurrence of Tension Pneumothorax

- Burp the chest seal if one is in place
- If **initial NDC does not** result in improvement, a second NDC should be attempted at the **alternate recommended site**
- If tension pneumothorax initially responds to NDC, but symptoms later **recur**, then **repeat NDC at the same site right beside the original NDC**
- If **no improvement** is noted with the second NDC, **proceed with** circulation assessment and treatment following the **MARCH protocol**

DO NOT put NDC through a chest seal! **Use alternate site instead**

18. NDC Site Selection

- Site selection is based on the **mechanism of injury AND physical findings**
- Use either the **second (A)** or **fifth (B)** intercostal space (**either is preferred**)
- If the needle is used at the second intercostal space, **ensure** the site selection is **OUTSIDE** the nipple line

19. Position After NDC Treatment

- If the casualty is unconscious, place the casualty in the recovery position
- If the casualty is conscious, allow the casualty to adopt the sitting position if breathing is more comfortable

20. Needle Decompression of the Chest

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

21. Skill Station

Respiration (Skill)

- Needle Decompression of Chest (NDC)

22. Summary

- We **identified** the **signs and symptoms** of an open pneumothorax
- We **discussed** the **treatment** options for an open pneumothorax
- We **identified** the **signs and symptoms** of a tension pneumothorax
- We **discussed** the treatment for a tension pneumothorax
- **Both types** of chest injuries (sucking chest wounds and tension pneumothorax) **WILL REQUIRE** advanced evaluation by **medical personnel** and **evacuation**
- Tension pneumothorax is a **PREVENTABLE cause of death**

23. Check on Learning

- What is a tension pneumothorax?
- How should you treat an open chest wound?
- What should you do if you suspect a casualty has a tension pneumothorax?

This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal blue lines across its entire width. The lines are thin and consistent in color, set against a plain white background. There are no margins, text, or other markings present on the page.

MODULE 9

CIRCULATION/HEMORRHAGE CONTROL

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are [HERE](#)

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **T10** Given a combat peacekeeping or non-combat peacekeeping scenario, perform haemorrhage control during Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO59** Identify the principles of wound packing and applying pressure bandages
 - **EO60** Demonstrate wound packing and applying a pressure bandage
 - **EO61** Identify progressive strategies, indications, and limitations of controlling external hemorrhage in Tactical Field Care
 - **EO62** Identify the signs, symptoms, and considerations of a pelvic fracture

4. Three Phases of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety

- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE ⇐ You are HERE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

5. MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

➤ CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

6. Hemorrhage Control in Tactical Field Care

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

7. Pelvic Fractures

Pelvic fracture may be **suspected** if the casualty's injuries are a result of blunt force or blast with **ONE OR MORE** of the following:

Physical signs suggesting a pelvic fracture:

- **Pelvic pain**
- Major lower limb **amputation OR** lower **near amputations**
- Deformities, penetrating injuries, bruising near the pelvis

- **Pelvic instability** or **crepitus** (crinkly or grating feeling or sound under the skin)
- **Unconsciousness** or **shock**

If a pelvic fracture is **suspected**, the casualty **WILL REQUIRE** advanced evaluation by **medical personnel**

8. Reassessment

- Reassess all **PREVIOUS** and **CURRENT** hemostatic dressings applied and ensure they are tight and effective
- If ineffective, apply a **second TQ side-by-side** with the first
- Reassess all **PREVIOUS** and **CURRENT** hemostatic dressings applied for **effectiveness**
- If you placed a TQ above a casualty's elbow, for instance, you should expect to ***find no pulse*** at the wrist below if the TQ was properly applied

9. Strategies and Limitations

EARLY CONTROL OF SEVERE HEMORRHAGE IS CRITICAL

- UN TCCC recommended hemostatic dressings are to be applied **directly to the skin** in **TFC 2-3 inches above the bleeding site**
- Casualty's hemorrhage control interventions **must be FREQUENTLY REASSESSED** to ensure continued hemorrhage control

DO NOT EVER APPLY IT AND FORGET IT!

10. Wound Packing and Pressure Dressing

- Identify the **exact source** of bleeding
- **Pack** the wound
- **Apply direct pressure** for 3 MINUTES
- **Secure** the bandage
- If the bandage has a pressure bar, **pull the bandage TIGHT**, and reverse it back over the top of the pressure bar, **forcing it down** onto the pad

11. Wound Packing

KEEP PRESSURE

- Identify the **exact source** of bleeding and **APPLY direct pressure** as a **temporary** measure **UNTIL** gauze is placed
- Pack the wound **maintaining CONSTANT** direct pressure at the source of bleeding within **90 SECONDS** to be effective

- **HOLD** direct pressure on the gauze over the wound for at least **3 MINUTES** (this is necessary, even with the active ingredient in hemostatic dressings)
- When packing a large wound, more than one hemostatic gauze and/or **additional** gauze may be **needed**
- Carefully **observe** to determine if bleeding has been **controlled**
- Once you are sure the bleeding has **stopped**, apply a pressure bandage

12. Pressure Bandage Reassessment

Key Points:

- Check for **circulation BELOW** the pressure bandage by **feeling for distal pulse** (a pulse below the bandage)
- If the **skin BELOW** the pressure bandage becomes **cool** to the touch, **bluish**, or **numb**, or if the **pulse** below the pressure dressing is **no longer present**, the pressure bandage may be **too tight**
- If circulation is **BLOCKED** or **STOPPED**, **loosen** and retie the bandage
- Dressings and bandages should be **reassessed** and checked **routinely** and **EVERY TIME** a casualty is moved

13. If the Pressure Bandage Is Ineffective

- If the pressure bandage or hemostatic dressing is **ineffective**, **APPLY** a **hemostatic dressing 2-3 inches above** the bleeding site
- If the pressure bandage is **ineffective AND/OR blood soaked**, **REPLACE** pressure dressing with **hemostatic dressing**
- Pack the wound, **maintaining CONSTANT** direct pressure at the source of bleeding within **90 SECONDS** to be effective

14. Pressure Bandage

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

15. Skill Station

Circulation/Hemorrhage Control (Skills)

- Wound Packing with Hemostatic Dressing and Pressure Bandage

16. Summary

- If not already done, **clearly mark ALL TQs** with the **time** of TQ application and document that on the **Casualty Card**

- Check for radial pulse
- Assess for shock

17. Check on Learning

- During Circulation in the MARCH PAWS sequence, what interventions should be reassessed?
- What are the signs and symptoms of a pelvic fracture?

MODULE 10

Shock Recognition

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant $\Leftarrow$ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **T11** Describe shock assessment in Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO63** Identify the signs, symptoms, and management steps of shock in a trauma casualty with life-threatening bleeding
 - **EO64** Identify the importance of level of consciousness and radial pulse as indicators of shock in Tactical Field Care

4. MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

> CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

5. Shock Recognition

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

6. Shock

- Shock is **inadequate blood flow to body** tissues. Inadequate blood volume inside the circulatory system results in inadequate oxygen delivery to the body's cells
- As cells cease to function, tissues cease to function, then organs cease to function, and eventually the **whole body will fail** and **DEATH** follows

IMPORTANT CONSIDERATIONS:

Shock will lead to the casualty's death if not quickly recognized and treated

7. Shock

- Caused by a decrease in the amount of blood volume circulating in the casualty's blood circulatory system
- Shock can have many causes – low blood volume or hypovolemia (dehydration or blood loss), low blood pressure (massive infection), heart failure, or neurologic damage
- Usually caused by severe bleeding, but it can also be caused by severe burns (second- and third-degree burns on 20 percent or more of the body surface)
- On the battlefield, assume shock is from severe blood loss (also called hemorrhagic shock)

Hemorrhagic shock can result in the casualty's **death**

8. General Indicators of Shock

SIGNS AND SYMPTOMS OF SHOCK INCLUDE:

- **Mental confusion**
- Rapid breathing
- Sweaty, cool, clammy skin

- Pale/grey skin
- Weak or absent radial pulse
- Nausea
- Excessive
- Thirst
- Previous severe bleeding

9. General Indicators of Shock

IMPORTANT Indicator:

- Mental confusion

IMPORTANT Indicator:

- Weak or absent radial pulse

If **BOTH** indicators exist, the casualty has lost a **SIGNIFICANT** amount of blood

As previously stated, shock will lead to the casualty's **death** if not quickly recognized and treated

10. General Indicators of Shock

Blood Volume	Blood Loss	Signs/Symptoms	Effectme
4 liter bottles full, 1 bottle 1/2 empty	500cc	Possible increased HR	Usually no effects
4 liter bottles full, 1 empty	1000cc	Radial pulse >100 Breathing probably normal	Unlikely to die from this amount of loss
3 1/2 bottles full, 1 1/2 empty	1500cc	Change in mental status Weak radial pulse >100 Increased respirations	Still unlikely to die
3 bottles full, 2 empty	2000cc	Confusion and lethargy Very weak radial pulse >120 High respiratory rate >35	Very possibly fatal if not managed
2 1/2 bottles full and 2 1/2 bottles empty	2500cc	Unconscious No radial pulse, carotid pulse, HR >140 Respirations > 35	Fatal without immediate and rapid interventions

11. Prevent Shock by Controlling Bleeding

#1- Reassess to confirm all bleeding control measures are still effective

Ensure TQs and pressure dressings remain tight

DO NOT WAIT for signs and symptoms of shock to occur

- It is better to prevent shock with hemorrhage control than to treat it
- If shock is present, though, the most critical first step is to control the bleeding
- Internal bleeding from chest or abdominal trauma may not be controllable, and shock may develop later, so continuously assess the casualty
- Medical personnel will provide other treatments, but you can save them time if extremal bleeding is controlled

12. Assess/Monitor for Hemorrhagic Shock

- Assess for signs and symptoms of shock as soon as hemorrhage is controlled, the airway is open, and respirations have been managed
- The best indicators of shock are a decreased state of consciousness (if casualty has not suffered a head injury) and/or an abnormal, weak, absent radial pulse
- Assess for hemorrhagic shock (altered mental status in the absence of brain injury and/or weak or absent radial pulse)
- Reassess/monitor for changes in the level of consciousness by checking for alertness or responsiveness to verbal or physical stimulation

13. Reassess

Level of consciousness

Check casualty every 15 minutes for **AVPU**

Alertness - Knows who, where they are

Verbal - Orally responds to verbal commands

Pain - Level of pain felt when the sternum is
briskly rubbed with the knuckle (if needed)

Unconscious - Unresponsive

Decreasing AVPU could indicate condition worsening

Breathing rate

Monitor respirations

- Thoracic trauma may indicate tension pneumothorax (needle decompression of the chest required)
- If a casualty becomes unconscious or their breathing rate drops below two respirations every 15 seconds, insert a nasopharyngeal airway

14. Shock Management

- Fluids by mouth are permissible if the casualty is conscious and can swallow
- Evacuate the casualty if medical help is not available
- Place casualty in recovery position

Reassess the casualty frequently for the onset of shock

15. Hypothermia Management

REMEMBER:

Keep the casualty **warm** and prevent hypothermia. Even in **very hot environments**, a casualty in **hemorrhagic shock** (blood loss) is at **EXTREME risk for hypothermia**

- Place a poncho or blanket under the casualty to protect from the temperature or dampness of the ground
- Cover the casualty with a survival blanket or other available materials to keep them warm and dry

16. Summary

IMPORTANT Indicator:

- Mental confusion

IMPORTANT Indicator:

- Weak or absent radial pulse
- We **defined** shock
- We **identified** indicators of shock
- We discussed **prevention measures** for shock
- We discussed the **management** of shock
- We **introduced** hypothermia

17. Check on Learning

- What is shock?
- What are the best indicators of shock?
- What is the most important action to prevent hemorrhagic shock?

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MODULE 11

Hypothermia Prevention

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **T12** Given a combat peacekeeping or non-combat peacekeeping scenario, perform hypothermia prevention measures on a trauma casualty during Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO65** Identify the progressive strategies, indications, and limitations of hypothermia prevention of a trauma casualty in Tactical Field Care
 - **EO66** Demonstrate active external warming hypothermia prevention measures on a trauma casualty
 - **EO67** Identify passive hypothermia prevention measures on a trauma casualty

4. MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION
CIRCULATION
➤ HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN
ANTIBIOTICS
WOUNDS
SPLINTING

5. Hypothermia

- Hypothermia is the decrease in body temperature
- Even a small decrease in body temperature can interfere with blood clotting and increase the risk of bleeding to death
- Casualties in shock are unable to generate body heat effectively
- Hypothermia is a problem for casualties with haemorrhagic shock, even with warm, ambient temperatures

IMPORTANT CONSIDERATIONS:

A lower body temperature may not be an indicator of hypothermia; it may be due to exposure to a cold environment

6. Hypothermia Prevention

- Minimize the casualty's exposure to the elements
- Keep protective gear on or with the casualty if feasible
- Replace wet clothing with dry, if possible

You can better **prevent** hypothermia by getting the casualty onto an insulated surface as soon as possible

7. Hypothermia Prevention

Get the casualty onto an insulated surface as soon as possible.

- Hypothermia is much easier to prevent than to treat
- Begin hypothermia prevention as soon as possible
- Decreased body temperature interferes with blood clotting and increases the risk of bleeding
- Blood loss can cause a significant drop in body temperature, even in hot weather

8. Active Hypothermia Prevention

Your medical personnel will distribute the active hypothermia blankets based on unit mission and load

- Active hypothermia blankets are activated when their heating elements are exposed to air
- Active hypothermia blankets are applied to a casualty who cannot generate their own heat, but not directly on their skin because the activated blankets can cause burns

9. Active Hypothermia Prevention

Apply the active warming blanket from the active hypothermia blanket to the casualty's torso (**not directly on the skin**), and cover the casualty with the passive hypothermia shell

KEY POINTS:

- If an active hypothermia blanket is not available, a combination of the passive warming blanket and an active warming blanket may also be used
- Active hypothermia treatment uses heating sources to warm the casualty
- Oxygen levels at higher altitudes may not be enough to sustain the chemical reaction required to generate heat

10. Passive Hypothermia Prevention

Passive hypothermia materials provide heating by:

- Keeping the casualty's body heat contained in the passive material
- Keeping the casualty off the ground

11. Passive Hypothermia Prevention

Place a poncho or blanket under the casualty to protect them from the temperature or dampness of the ground

- Passive hypothermia prevention does not reverse the hypothermic process
- If no rewarming equipment is available, then use dry blankets, poncho liners, sleeping bags, or anything that will retain heat and keep the casualty dry
- Keep the casualty off the ground

KEY POINTS:

- Blood loss can cause a significant drop in body temperature, even in hot weather
- Wrap the entire blanket-like shell (or passive heating materials) completely around the casualty, including the head
- Do not cover the face

12. Hypothermia Prevention

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

13. Skill Station

Hypothermia (Skill)

- Active/passive external warming hypothermia prevention

14. Summary

- We defined hypothermia
- We discussed active hypothermia management/prevention
- We discussed passive hypothermia management/prevention

KEY POINTS:

- **Passive** hypothermia prevention **DOES NOT** reverse the hypothermic process
- **Active** hypothermia, when at high altitudes, may not be enough to sustain the chemical reaction required to generate heat

15. Check on Learning

- Why is it important to keep a trauma casualty warm even if it is a hot environment?
- What is the difference between active and passive hypothermia management?

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MODULE 12

Head Injuries

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **T13** Identify a head injury in accordance with UN TCCC Guidelines
 - **EO68** Identify external forces that can cause a head injury
 - **EO69** Identify signs and symptoms of a head injury
 - **EO70** Identify the critical observations that should be reported to medical personnel for trauma casualties with a suspected head injury in accordance with the Military Acute Concussive Evaluation 2 (MACE 2).

4. Three Phases of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE ⇐ You are HERE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

5. MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

➤ HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

6. Potential Mechanisms of Head Injury

Head injury is trauma to the **scalp, skull, and/or brain**

- Involvement in a vehicle **blast event, collision**, or rollover
- Presence within **50 METERS of a blast** (inside or outside)
- A direct blow to the head or witnessed loss of consciousness
- Exposure to **more than one blast event** (the Service member's commander will direct a **medical evaluation**)

OTHER EXTERNAL FORCES MAY ALSO LEAD TO HEAD INJURIES

7. Signs and Symptoms of Head Injury

IED Checklist

Injury	Physical damage to the body or body part of a Service member?	(Yes/No)
Evaluation	H – Headaches and/or vomiting?	(Yes/No)
	E – Ear ringing?	(Yes/No)
	A – Amnesia, altered consciousness, and/or loss of consciousness?	(Yes/No)
	D – Double vision and/or dizziness?	(Yes/No)
	S – Something feels wrong or is not right?	(Yes/No)
Distance	Was the Service member within 50 meters of the blast? Record the distance from the blast.	(Yes/No) Not Applicable

8. Signs and Symptoms Requiring MACE 2*

EVALUATION BY MEDICAL PERSONNEL

Evaluations are **most effective** when done **as soon as possible** after the injury. **Traumatic brain injury (TBI)** is likely if the casualty shows signs of **ANY** of the following:

- Deteriorating level of consciousness
- Double vision
- Increased restlessness; combative or agitated behavior
- Repeat vomiting
- Results from a structural brain injury detection device (if available)
- Seizures
- Weakness or tingling in arms or legs
- Severe or worsening headache

9. Summary

- We **defined** head injury
- We discussed **mechanisms of injury**
- We discussed **signs and symptoms**
- We identified **critical observations** to **report to higher medical personnel**

10. Check on Learning

- What external forces can cause a head injury?
- What are the critical observations that should be reported to medical personnel for trauma casualties with a suspected head injury, in accordance with MACE 2?

[illegible]

MODULE 13

Eye Injuries

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **T14** Given a combat peacekeeping or non-combat peacekeeping scenario, perform assessment and initial treatment of penetrating eye trauma during Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO71** Identify basic care of an eye injury in accordance with UN TCCC Guidelines
 - **EO72** Demonstrate the application of a rigid eye shield to a trauma casualty in Tactical Field Care

4. Three Phases of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE ⇐ You are HERE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

5. MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

➤ HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

6. Eye Injuries

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

7. When to Suspect a Penetrating Eye Injury

1. **Bleeding surrounding** the eye, **inside** the eyeball; or **coming from** the eyeball
2. **Obvious penetration** of **shrapnel** or **debris** into the eyeball or eye socket
3. **Protruding objects** from the globe of the eyeball
4. **Swelling** or **lacerations** of the globe of the eyeball
5. **Protrusion of the globe of the eyeball** from the eye socket
6. **Reduced vision** and **swelling** of the eye area
7. **Misshapen** or **distorted parts** of the eye

8. If a Penetrating Eye Injury is Noted or Suspected

1. Perform a rapid field test of visual acuity and document findings
2. Cover the affected eye with a rigid eye shield (**NOT a pressure patch**)

REMEMBER

- All treatments performed must be documented in the casualty's Cas Card

9. Protecting the Eye

Apply a rigid eye shield

- When penetrating eye trauma due to shrapnel is suspected, it is critically important to prevent manipulation or additional trauma to the eye that might cause further damage to the eye

IMPORTANT! DO NOT APPLY PRESSURE

- Avoid/prevent manipulation or additional trauma to the eye that might cause further damage
- Pressure on the eye could force the interior contents of the eye out of the eyeball through a cut or laceration

10. Applying Rigid Eye Shield

The rigid eye shield is found in JFAK; if eye shield is not available, use casualty's tactical eyewear to protect the injured eye

Secure the rigid eye shield with tape at 45-degree angles across the forehead and cheek

- Do **NOT** cover both eyes unless both eyes are injured

REMEMBER

- Rigid eye shields should be placed over both eyes only when you are sure or at least strongly suspect that both eyes have been injured
- If the casualty is conscious, request Medic assistance for administration of the WMP

11. Document Treatment

- Document all assessments and treatment on the **Casualty Card**
- Be sure to include any medications administered and the time administered

12. Rigid Eye Shield Application

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

13. Skill Station

Rigid Eye Shield (Skills)

- Rigid Eye Shield

14. Summary

- We identified **eye injuries**
- We discussed eye injury **treatment**
- We discussed **applying** an eye shield
- We discussed **documentation**

15. Check on Learning

- What kind of dressing should be used on penetrating eye trauma with an impaled object?
- True or False: Protecting the injured eye with an eye shield is just as safe as using a patch or a pressure dressing.
- True or False: Only the injured eye should be covered with an eye shield.

[illegible]

MODULE 14

Analgesics and Antibiotics

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **T15** Given a combat peacekeeping or non-combat peacekeeping scenario, recommend analgesia administration during Tactical Field Care in accordance with UN TCCC Guidelines
 - **E073** Assist Medic to identify the indications and considerations of the analgesia approaches in Tactical Field Care
 - **E074** Assist Medic to identify the indications, contraindications, and administration methods of acetaminophen in Tactical Field Care
 - **E075** Assist Medic to Identify the indications, contraindications, and administration methods of analgesics (pain medications) in Tactical Field Care
 - **E076** Assist Medic in administration of a Wound Medication Pack in Tactical Field Care
- **T16** Given a combat peacekeeping or non-combat peacekeeping scenario, assist Medic to perform antibiotic administration during Tactical Field Care in accordance with UN TCCC Guidelines

- **EO77** Assist Medic to identify the evidence and considerations for early antibiotic administration in Tactical Field Care
- **EO78** Assist Medic to identify the indications, contraindications, and administration methods of antibiotics in Tactical Field Care

4. Three Phases of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE ⇐ You are HERE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

5. MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING



PAIN

ANTIBIOTICS

WOUNDS

SPLINTING

6. Example of a Wound Medication Pack (WMP)

WMP

- Found in Medics kit
- Contains medication taken by mouth
- Document all medications administered (and time given) on UN Casualty Card

7. Examples of pain medication (#1 and #3) antibiotic (#2)

- 1** acetaminophen pain management
- 2** moxifloxacin antibiotic
- 3** meloxicam anti-inflammatory

8. Analgesia Administration Overview

ANALGESIA ADMINISTRATION

FMA may ONLY assist a Medic

Remember other methods of pain control:

- **Splinting**
- **Wound dressing**
- **Burn covering**
- **Distraction and reassurance**

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

9. Antibiotics Overview

ANTIBIOTICS ADMINISTRATION

FMA may ONLY assist a Medic

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

10. Wound Medication Pack

- Mild to moderate pain
- Casualty is still able to fight
- Casualty should take all three medications in WMP
- Fractures
- Burns
- Eye Injuries
- **Note:** If casualty has wounds or pain severe enough to render them unable to fight, the Medic has other options to treat pain
- These meds will generally require that the casualty be disarmed, as they can result in the alteration of a casualty's mental status

COMBAT WOUND MEDICATION PACK

Video can be found on DeployedMedicine.com

11. When to assist the Medic to give WMP

GIVE

- Conscious and able to swallow
- Has mild to moderate pain
- Is still able to fight if needed
- Has penetrating wounds or break in the skin

DON'T GIVE

- Unable to swallow or take oral meds (unconscious or severe facial trauma/burns)
- Known allergies

Refer to Medic if unconscious

Note: If the casualty has a break in the skin resulting from a traumatic injury, the casualty should take the WMP; otherwise, consult with Medic before taking

12. Skill Station

Analgesia/Antibiotics (Skills)

- WMP

13. Summary

- Only a Medic may administer drugs assisted by FMA

- Battlefield wounds can be very dirty and susceptible to infection; early administration of antibiotics may reduce the chance of later infections
- Wound infections can kill the casualty or delay their recovery
- WMP should be given **ASAP** for wounds **after life-threatening** issues have been addressed

WMP should be given for any penetrating wounds

14. Check on Learning

- FMA may give drugs?
- True or False: The WMP contains pain medication and antibiotics.
- How should the WMP be taken?
- Who should take the WMP?

Notes

MODULE 15

Wound Management

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **T17** Given a combat peacekeeping or non-combat peacekeeping scenario, perform assessment and initial management of wounds during Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO79** Identify wound management considerations in Tactical Field Care
 - **EO80** Demonstrate application of wound dressings on a trauma casualty in Tactical Field Care

4. Three Phases of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE ⇐ You are HERE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

5. MARCH PAWS

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS



WOUNDS

SPLINTING

6. Continued Reassessment

Once applied, continue to check the casualty's hemorrhage control interventions and wound management; do not apply and forget about it!

All wounds must be **FREQUENTLY REASSESSED** to ensure continued hemorrhage control

BLEEDING IS THE #1 CAUSE OF PREVENTABLE DEATH ON THE BATTLEFIELD

7. Confirm all Wounds are Accounted For

Observe for blood flowing around or under:

- TQs, bandages, and dressings

If bleeding has not been controlled:

- Tighten the TQ
- Tighten the pressure bandages
- Redress the wounds
- Reassess prior life-threatening wounds to ensure bleeding is still controlled

WATCH FOR REBLEEDING!

8. Treat for Re-Bleeding

- Pack any wounds that continue to bleed with hemostatic dressing
- Once applied (with pressure for 3 minutes), carefully **observe** for blood continuing to flow from under the gauze to determine if bleeding has been controlled
- Once you are sure the bleeding has stopped, apply a **pressure bandage** over the hemostatic dressing

ALWAYS REASSESS TREATMENT!

9. Dressings and Bandages for Minor Wounds

Dress any previously untreated wounds by applying (or packing) gauze with direct pressure

- Non-life-threatening bleeding usually does not need hemostatic dressings
- If no dressings or gauze are available, use clean dry cloth (torn clothing, cravats, etc.)

Minor wounds include:

- Minor lacerations
- Abrasions (road rash)

This includes major wounds that are no longer bleeding, such as:

- Amputation stumps
- Gunshot wounds that required TQ
- Major lacerations
- Shrapnel wounds (still in place)
- Impaled objects

10. Reassess Applied Bandages

Assess all applied bandages for:

- Increased pain
- Pale or bluish skin
- Pulse

This might indicate an emergency!

Ensure the applied bandage **isn't too tight**; loosen as needed while keeping the bleeding controlled

DO NOT EVER APPLY IT AND FORGET IT!

11. Skill Station

Wound Management (Skill)

- Wound dressing

12. Summary

- We defined **reassessment**
- We discussed **re-bleeding**
- We discussed treatment for **minor wounds**
- We discussed **reassessing** bandages

13. Check on Learning

- Why should all dressed wounds be continuously reassessed?
- When should minor wounds be addressed?

Notes

MODULE 16

Burn Treatment

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **T18** Given a combat peacekeeping or non-combat peacekeeping scenario, perform assessment and initial treatment of burns during Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO81** Identify the specific scene safety issues and actions required of a trauma casualty with burns, before evaluation and care of the casualty
 - **EO82** Identify the severity of burn in accordance with the conventional burn classification
 - **EO83** Identify how to estimate the body surface area burned using the Rule of Nines
 - **EO84** Demonstrate the application of a dry dressing to a burn casualty in accordance with UN TCCC guidelines
 - **EO85** Demonstrate techniques used to prevent heat loss in a severe burn casualty in accordance with UN TCCC guidelines

4. Three Phases of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE ⇐ You are HERE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

5. **MARCH PAWS**

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS



WOUNDS

SPLINTING

6. Follow **MARCH PAWS**

- Address **ALL OTHER life-threatening** injuries using the MARCH PAWS sequence
- All trauma treatments can be performed on or through burned skin

Remember

- A burned trauma casualty is a trauma casualty first

7. Potential Causes

FIREFIGHTS
EXPLOSION (IED/VBIED)
VEHICLE/AIRCRAFT CRASHES

ELECTRICAL
THERMAL
CHEMICAL

8. Electrical

IN CASE OF ELECTRICAL INJURY

- Secure the power, if possible; otherwise, remove the casualty from the electrical source using a nonconductive object, such as a wooden stick
- Move the casualty to a safe place

9. Thermal

IN CASE OF THERMAL INJURY

- Stop the source of the burn
- Cut clothing around the burned area and gently lift away

If clothing is stuck to the burn, ensure you cut around the clothing and leave it in place

- Be sure to avoid grabbing the burned area while moving/picking up the casualty

10. Chemical

IN CASE OF CHEMICAL INJURY

EXAMPLE

- White phosphorus

SOURCE

- Commonly found in tank rounds, mortar rounds, artillery rounds

TREATMENTS

- Submerge the burned area in water
- Apply wet barrier (water-soaked gauze, clothing, mud, etc.) with an occlusive dressing
- Advise medical personnel **immediately**

11. Burns

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

12. Severity of Burn

BURNS ARE CLASSIFIED BY THE DEPTH OF THE WOUND

SUPERFICIAL 1ST-DEGREE BURNS are just like a sunburn, with a reddened appearance of the skin

PARTIAL THICKNESS 2ND-DEGREE BURNS will also have blisters

FULL THICKNESS 3RD-DEGREE BURNS may appear dry, stiff, and leathery, and/or can also be white, brown, or black

13. Rule of Nines

11 areas that each have **9% body surface area** (head, arms, front and backs of legs, and front and back of the torso having **TWO 9% areas**)

- **Palm size** represents ~1%
- **Estimate/round up to nearest 10**

If half of the front or rear area **is burned**, the area would be **half** of the **area value**

ESTIMATION EXAMPLE

- **Half** of the front upper/lower leg is **4.5%**
- **Half** of the front upper/lower torso is **9%**

14. Burn Care

REMOVE

watches and jewelry from burned area

COVER

the burn area with dry, sterile dressings

COVER

burns from **white phosphorus** with **wet** dressings

15. Burn Care + Hypothermia Prevention

Passive Warming Supplies

For **extensive burns (>20%)**, consider using **active** warming supplies to cover the burned areas and prevent hypothermia

- Burn patients are particularly susceptible to hypothermia
- Extra emphasis should be placed on barrier heat loss prevention methods

Facial Burns

- Facial burns, especially those that occur in closed spaces, may be associated with inhalation injury
- These casualties should be monitored closely for potential airway issues
- **DO NOT** place NPA in casualty with signs of inhalation burns

16. Skill Station

Burn Treatment (Skill)

- Burn dressing

17. Summary

- We discussed **treatment priorities**
- We discussed **potential causes** of burns
- We identified **electrical** burns
- We identified **thermal** burns
- We identified **chemical** burns
- We discussed the **Rule of Nines**
- We discussed burns **and** hypothermia
- We discussed the **prevention of hypothermia**

18. Check on Learning

- What kind of dressing should be placed on burned areas?
- What should you do first when you encounter a casualty with an electrical burn?
- What should you do first when you encounter a casualty with a thermal burn?

MODULE 17

Fractures

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are HERE

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **T19** Given a combat peacekeeping or non-combat peacekeeping scenario, perform assessment and initial management of fractures during Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO86** Identify signs of a suspected fracture
 - **EO87** Demonstrate the basic care of fractures in accordance with TCCC Guidelines
 - **EO88** Demonstrate proper splint application using a malleable rigid or improvised splint to a suspected fracture in Tactical Field Care

4. Three Phases of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE ⇐ You are HERE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

5. **MARCH PAWS**

DURING LIFE-THREATENING

MASSIVE BLEEDING #1 Priority

AIRWAY

RESPIRATION

CIRCULATION

HYPOTHERMIA / HEAD INJURIES

AFTER LIFE-THREATENING

PAIN

ANTIBIOTICS

WOUNDS

➤ **SPLINTING**

6. **Assess for a Fracture**

CLOSED FRACTURE

No open wound (break in skin) for closed fracture

OPEN FRACTURE

Open fracture open wound (break in skin) major threat for infection

WARNING SIGNS OF A FRACTURE:

- Significant pain and swelling
- An audible or perceived “snap”
- Different length or shape of limb
- Loss of pulse or sensation in the injured arm or leg
- Crepitus (hearing a crackling or popping sound under the skin)

7. **Objectives of Splinting**

A splint is used to prevent movement and hold an injured arm/leg in place to:

1. Identify the location of the fracture
NOTE: Have the casualty or someone else manually stabilize the area
2. Check the distal pulse (pulse below the fracture) and capillary refill (color returning to the nail bed after pressing on it) on the injured extremity before applying the splint
3. Prepare the splint materials for application
NOTE: Measure and shape the splint on the opposing uninjured extremity
4. Prepare securing materials (cravats, elastic wraps/bandages, etc.)
5. Apply the splint to the injured extremity with the limb, in the position of function (a normal resting position), if possible
NOTE: If possible, lightly pad all voids within the splint to make it more comfortable
6. Secure the splint in place with appropriate materials
7. Ensure the joints above and below the fracture are immobilized in the splint whenever possible
8. Recheck the distal pulse following application of the splint. If the pulse is not palpable, loosen the splint, reposition, and reapply the splint
9. Refer to the Medic to administer the pain medications (from the Wound Medication Pack) as needed and the antibiotic for any open fracture(s)
10. Document all treatment on a Casualty Card and attach it to the casualty

8. Principles of Splinting

- Check for other associated injuries
- Use malleable or rigid materials
- Try to pad all voids or wrap if using rigid splint
- Secure splint with elastic bandage, cravats, belts, tape
- Try to splint before moving the casualty
- Minimize manipulation of the extremity before splinting
- Incorporate one joint above and below the fracture
- Splint arm fractures to the shirt using the sleeve, if needed
- Check distal pulse and skin color before and after splinting

9. Things to Avoid When Splinting

- Manipulating the fracture site too much resulting in pain, additional damage to blood vessels and nerves, etc.
- Securing too tightly, cutting off blood flow
- Failing to immobilize joint above and below fracture when possible
- Causing further injury
- Making casualty uncomfortable during transport/evacuation
- Splinting near or over a wound that has not be properly treated

10. Guidelines for Leg Splints

Identify the location of the fracture

Before applying the splint, **CHECK** distal pulse (pulse below the fracture)

CHECK capillary refill (color returning to the nail bed after pressing on it) on the injured extremity before applying the splint

Have the casualty or someone else manually stabilize the area

11. Guidelines for Leg Splints

PREPARE the splint materials for application

PREPARE securing materials (cravats, elastic wraps/bandages, etc.)

APPLY the splint to the injured extremity with the limb, in the position of function, a normal resting position, if possible

Measure and shape the splint on the opposing uninjured extremity

12. Guidelines for Leg Splints

SECURE the splint in place with appropriate materials

ENSURE the joints above and below the fracture are immobilized in the splint whenever possible

RECHECK the distal pulse following application of the splint

If the pulse is **not** palpable, loosen the splint, reposition, and reapply

13. Guidelines for Arm Splints

Splinting the arm is the same concept as splinting a leg with the following exceptions:

- If possible, have casualty support their injury while preparing equipment
- Mould padded splint using casualty's unaffected limb
- Use two triangular bandages to secure limb to body
- Use third triangular bandage; place under injured arm and around neck to help support injured limb

14. Guidelines for Arm Splints

- Check for signs of impaired circulation
- Apply a sling to immobilize the forearm
- Apply a swathe to immobilize the upper arm
- Place two cravats above the fracture site and two below the fracture site (preferred)

15. Splinting (Tactical Field Care)

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

16. Skill Station

Splinting (Skill)

- Splinting

17. Summary

- The most important aspect of splinting is to splint in a way that does not harm the nerves or blood vessels in the splinted extremity

- **Before** and **after** splinting, **assess** the following:

CIRCULATION

Check pulses distal to the splint (between splint and end of limb)

MOTOR

Ask the casualty to move the body parts distal to the splint, e.g., fingers or toes

SENSORY

See if the casualty can feel a gentle touch on the body parts distal to the splint

AFTER SPLINTING

Document all assessment and treatment on the Casualty Card

18. Check on Learning

- True or False: When applying a splint, ensure the joints above and below the fracture are immobilized in the splint whenever possible.
- What should you assess before and after splinting?

[illegible]

MODULE 18

Casualty Monitoring

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are [HERE](#)

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **T20** Given a combat peacekeeping or non-combat peacekeeping scenario, perform monitoring of a trauma casualty during Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO89** Identify the methods to assess level of consciousness, pulses, and respiratory rate on a trauma casualty in Tactical Field Care
 - **EO90** Demonstrate assessment of radial/carotid pulse and respirations in a trauma casualty in Tactical Field Care

4. Three Phases of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE ⇐ You are HERE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

5. Assessment Using MARCH PAWS

Re-bleeding

MARCH

MASSIVE BLEEDING

- Check for re-bleeding on any previous treatments

Management

MARCH

AIRWAY

- Ensure airway remains open and unobstructed

Reassess casualty every 5–10 minutes. for change in status until handoff with medical personnel

6. Assessment Using MARCH PAWS (Cont.)

Breathing Rate

MARCH

RESPIRATION

BREATHING

Pulse

MARCH

CIRCULATION

Level of Consciousness

MARCH

HYPOTHERMIA

HEAD INJURIES

- Document any changes in status on the casualty's Cas Card.
- If medical personnel arrive in the middle of reassessment, stop and hand off casualty immediately

7. Level of Consciousness

- Check every 15 minutes (or if seriously wounded every 5–10) for decrease in AVPU:
 Alert
 Verbal
 Pain
 Unconscious
- This could indicate condition worsening
- If casualty is not **ALERT**, indicating decreased mental status, the casualty should not have weapons or communications equipment

8. AVPU Assessment How-To

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

9. Checking Pulse

ASSESSING RADIAL & CAROTID PULSE

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

CAROTID (neck)

If casualty status is noted to be deteriorating when assessed, reassess using the MARCH PAWS sequence

RADIAL (wrist)

No radial pulse is an indicator of shock

IMPORTANT CONSIDERATIONS

Measure the number of felt heartbeats in 1 MINUTE and record on Casualty Card

10. Checking Respirations

LOOK, LISTEN and FEEL FOR RESPIRATIONS

- If a casualty becomes unconscious or their breathing rate drops below **8 respirations within 1 MINUTE**, insert a nasopharyngeal airway
- Assess for tension pneumothorax and treat as necessary
- Perform needle decompression in the presence of tension pneumothorax

- **Reassess** to confirm that needle decompression of the chest (NDC) was successful

11. Skill Station

Casualty Monitoring Concepts (Skills)

- Level of consciousness
- Radial pulse
- Carotid pulse
- Tibial pulse

12. Summary

LOOK, LISTEN and FEEL FOR RESPIRATIONS

- We discussed assessment using **MARCH PAWS**
- We discussed levels of consciousness
- We discussed checking for pulse
- We discussed checking respirations

13. Check on Learning

- How is a casualty monitored after the MARCH PAWS sequence has been executed?

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MODULE 19

Pre-Evacuation Procedures

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are [HERE](#)

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **T21** Given a combat peacekeeping or non-combat peacekeeping scenario, perform pre-evacuation procedures during Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO91** Identify the importance of and techniques for communicating casualty information with evacuation assets and/or receiving facilities
 - **EO92** Identify the information requirements and format of an evacuation request
 - **EO93** Identify the recommended evacuation prioritization for combat casualties
 - **EO94** Demonstrate the communication of evacuation request information and modified medical information report requirements
- **T22** Given a combat peacekeeping or non-combat peacekeeping scenario, perform documentation of care during Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO95** Identify how to document casualty information on the Casualty Card and the proper placement of that card on the casualty.
 - **EO96** Demonstrate the proper documentation of care on a trauma casualty in Tactical Field Care

4. Three Phases of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE ⇐ You are [HERE](#)

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

5. Communication

Communicate with the casualty if possible

- Encourage
- Reassure
- Explain care each step of the way

Communicate immediately with tactical leader for

- Status
- Evac requirements
- Casualty treatment

COMMUNICATE WITH EVACUATION AND MEDICAL ASSETS

- Communicate with evacuation system to coordinate EVAC using 4-Line CASEVAC request
- Keep the Casualty Card up to date

6. Communicate Relevant Casualty Data

Document all assessment and medical care (including interventions and medications) on the Casualty Card

Communicate with evacuation system:

- 4-Line CASEVAC request
- **MIST** Report
 - Mechanism of injury
 - Injuries
 - Symptoms
 - Treatment
- Relay the information following your standard operating procedures (SOPs)

HANDOFF WITH MEDIC OR CASEVAC

- When handing off the casualty to the Medic or CASEVAC, provide the Casualty Card, including any additional information as needed
- MIST report
- May change as the casualty status and interventions performed change
- Conveys additional evacuation information that may be required by peacekeeping commanders
- Helps better prepare receiving facility

7. Requesting Evacuation of Casualties

- Although the Field Medical Assistant is not a medical person, they may need to initiate the medical evacuation request
- Depending on the tactical situation and available assets, the casualty may be evacuated by CASEVAC

CASEVAC

- Movement of a casualty from Point of Injury to a Medical Treatment Facility

MEDEVAC

- Movement of casualties between Medical Treatment Facilities

8. MEDEVAC Request Key Points

9-LINE MEDEVAC / MIST REPORT

Video can be found on [DeployedMedicine.com](https://www.deployedmedicine.com)

BE AWARE: This video demonstrates the TCCC 9-LINE MEDEVAC. The UN equivalent is the 4-LINE CASEVAC.

- **Every** UN member must be prepared to transmit a CASEVAC request

- A CASEVAC request is **NOT** a direct medical communication with medical providers, but a means of communicating evacuation requirements so aircraft resources can be launched as needed
- Gather **all** information needed **before** initiating transmission
- Use **appropriate and mandated communications security and brevity codes** when transmitting a CASEVAC request in accordance with the operational plan

9. **4-LINE: CASEVAC REQUEST LINES 1-4**

(4 Line Format)

Line	UN CASEVAC 4-LINE ALERT MESSAGE		
	DTG:		
1	LOCATION AND CALL SIGN	PLACE NAME / DESCRIPTION	A
		GPS GRID REFERENCE	B
		CALL SIGN OF INCIDENT SITE COMMANDER	C
2	INCIDENT DETAILS	WHAT HAS HAPPENED? (Shooting, road accident, explosion etc).	D
		HOW MANY CASUALTIES ARE THERE?	E
3	ACTIONS BEING TAKEN AT SCENE	TREATMENT BEING GIVEN AND PREPERATIONS FOR EVACUATION	
4	RESOURCES REQUIRED AT SCENE TO TREAT AND EVACUATE PATIENT	GROUND AMBULANCE, AIR EVACUATION, AMET	

10. Skill Station

Communication and Documentation (Skills)

- 4-Line & Mist Report

11. Casualty **Categories**

Ground medical personnel will determine EVAC categories of casualties

EXAMPLES:

URGENT	URGENT SURGICAL	PRIORITY	ROUTINE	CONVENIENCE
<2 hours to save life, limb, or eyesight	<2 hours to nearest surgical unit	<4 hours or could deteriorate to urgent	<24 hours	Not a medical necessity
Tourniquets Corrected haemorrhage Traumatic Brain Injuries (TBIs)	Needle Decompression of the Chest (NDCs) Cricothyroidotomy Major internal bleeding Massive head trauma	Compensated shock Broken arm with loss of distal pulse 2nd-degree burns to a large portion of the abdomen or extremities	Abrasions Cardiac arrest Small fractures Frostbite 2nd-/3rd-degree burns >70% of body surface area (BSA)	Used for administrative purposes for casualty movement

12. Over-Categorization

OVER-CATEGORIZATION: the tendency to classify a wound or injury as being more severe than it actually is.

This has been a historical, **AND** remains a current, problem.

Proper casualty categorization is needed to ensure that those casualties in greatest need are evacuated first and receive the care required to help ensure their **survival**.

Casualties will be picked up **as soon as possible**, consistent with available resources and pending missions.

- A. Urgent: <2 hours to save life, limb, or eyesight
- B. Urgent Surgical: <2 hours to nearest surgical unit
- C. Priority: <4 hours or could deteriorate to urgent
- D. Routine: <24 hours
- E. Convenience: not a medical necessity

13. Pre-Evacuation

COMMUNICATE

1. WITH THE CASUALTY

Encourage, reassure, and explain care

2. WITH TACTICAL LEADERSHIP

Provide leadership with the casualty status and location

3. WITH MEDICAL PERSONNEL

Discuss with the responding medics the casualty's injuries and symptoms, as well as any medical aid provided

DOCUMENT

1. CASUALTY ASSESSMENT FINDINGS

2. MEDICAL AID RENDERED

3. CHANGES IN CASUALTY STATUS

MIST Report is generated from Cas Card

14. Skill Station

Communication and Documentation (Skill) – Cas Card

15. Summary

- We discussed the **4-Line** and **MIST** Reports
- We discussed **requesting** an **evacuation** of a casualty
- We identified **over-categorization**
- We identified **key information** to relay to tactical leadership

16. Check on Learning

- With whom do you communicate in a casualty situation?
- What information does the MIST Report contain?
- Who should complete the Casualty Card?
- Where can you find the Casualty Card?

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MODULE 20

Evacuation Procedures

1. Introduction

2. Role-Based Training Spectrum

ROLE 1 CARE

NONMEDICAL PERSONNEL

- Buddy First Aid
- Field Medical Assistant ⇐ You are [HERE](#)

MEDICAL PERSONNEL

- Paramedic
- Nurse
- Doctor

3. Terminal Learning Objectives

- **T23** Given a combat peacekeeping or non-combat peacekeeping scenario, prepare casualties for evacuation during Tactical Field Care in accordance with UN TCCC Guidelines
 - **EO97** Identify considerations and fundamental procedures for staging casualties for evacuation
 - **EO98** Identify the importance of pre-mission evacuation equipment preparation and rehearsals
 - **EO99** Identify considerations and precautions required for evacuating casualties with suspected spinal injuries
 - **EO100** Identify critical actions and checks to prepare casualties for evacuation
 - **EO101** Identify methods of litter selection and evacuation equipment in Tactical Field Care
 - **EO102** Identify considerations for evacuating ambulatory/walking wounded casualties in Tactical Field Care
 - **EO103** Demonstrate the preparation of a casualty for evacuating in Tactical Field Care

- **EO104** Identify the importance and information considerations of a casualty After Action Review (AAR) submission

4. Three Phases of UN TCCC

1 CARE UNDER FIRE

RETURN FIRE AND TAKE COVER

Quick decision-making:

- Consider scene safety
- Identify and control life-threatening bleeding
- Move casualty to safety

2 TACTICAL FIELD CARE

COVER AND CONCEALMENT

Basic Management Plan:

- Maintain tactical situational awareness
- Triage casualties as required
- MARCH PAWS assessment

3 TACTICAL EVACUATION CARE ⇐ You are HERE

More deliberate assessment and treatment of unrecognized life-threatening injuries:

- Pre-evacuation procedures
- Continuation of documentation

NOTE: This is covered in more advanced UN TCCC training!

5. Important Actions (In this Module)

- Secure Items
- Prep Evac Equipment
- Choose and Prep Litter
- Package Casualty for Evacuation

6. Secure Casualty's Equipment

- Secure the casualty's weapon and equipment in accordance with unit SOP or mission requirements
- Clear and render safe any weapons evacuated with the casualty
- Do not evacuate explosives with the casualty if possible

Keep in mind that receiving medical personnel may not be familiar with the equipment or have a way to secure it.

7. Evac Equipment

- Prepped by unit personnel while treatment continues
- Coordinate other EVAC activities
- Do not delay getting casualties onto litters
- Hypothermia is better prevented off the ground
- Easier to move casualty on litter
- Keep necessary medical equipment with the casualty (Ex: BVM)

8. Litters

- Casualty movement is easier using litters
- Use best position for care and comfort
- You **DO NOT** have to place casualty on back
- For casualties with spinal injuries, keep spinal column as straight as possible
- **CASUALTY MUST BE SECURED before movement**
- Select litter based on mission or unit
- Consider and train according to operating environment:
 - Equipment
 - Movement
 - Rehearse litter open/setup/carry

9. Litter Selection

Compact/lightweight transport system

- ✓ Lightweight
- ✓ Two-peacekeeper carry
- ✓ Draggable by one peacekeeper
- ✗ Rough terrain (if dragging)

Compact quad-folding litter

- ✓ Small
- ✓ Carrying case
- ✓ Carried like a rucksack
- ✗ Requires more than one peacekeeper
- ✗ May not fit in evacuation vehicle

10. Package the Casualty

- Secure loose ends of bandages, medical equipment, and hypothermia prevention materials
- During evacuation, loose materials may get caught and cause further injury to casualties or delays
- Prevent items from being blown by rotor wash or becoming entangled with other equipment
- Blankets and hypothermia materials are especially susceptible to becoming entangled
- Secure the casualty to a litter
- Properly secure completed UN Casualty Card

11. Evacuation Considerations for Suspected Spinal Injuries

- Events to consider for neck or back injuries: falls, motor vehicle accidents, IEDs, fast-rope injuries, etc.
- Ensure cervical (neck) spine (C-spine) immobilization when spinal cord injury is suspected, if possible
Note: Spine board is requested during 4-Line CASEVAC request
- When considering selection of litter (such as standard litters) based on mission and unit, realize that the selected litter may not fit in the given evacuation ground/air vehicle

12. Walking Wounded

- Provide instructions/ assistance as needed
- If possible, casualty may assist as a litter bearer/provides security
- Guide disoriented / visually impaired casualty's hand-to-shoulder to evacuation platform

SELF-CARE

- Instruct casualty to repeatedly check their own wounds and dressings to ensure bleeding remains controlled

13. Stage Casualty

- Be prepared for the arrival of the evacuation platform
- Stage the casualties in the loading sequence of the evacuation platform
- Tagging or color-coded chemlights may be used to identify casualty evacuation categories
- Maintain security at the evacuation point in accordance with SOP

14. Medical After-Action Review (AAR)

The AAR covers the following

- What went right?
- What went wrong?
- What can we do better?
- Lessons learned on the casualties and injuries
- Treatment of casualties and effectiveness during mission

Capturing a good AAR ensures up-to-date medical information, types of casualties, and injury patterns that units might encounter and can train for.

15. Skill Station

Evacuation Procedures – Concepts (Skills)

- Staging for evacuation
- Preparing pre-mission evacuation equipment and rehearsing
- Evacuating casualties with suspected spinal cord injuries
- Preparing casualties for evacuation
- Selecting litter and evacuation equipment in TFC
- Evacuating ambulatory casualties in TFC
- Submitting the AAR
- Submitting/handing off the 4-Line CASEVAC report

16. Summary

- We identified important actions
- We discussed securing casualty equipment
- We discussed evacuation equipment
- We identified litter selections
- We discussed casualty packaging
- We identified spinal injury considerations
- We discussed walking wounded
- We identified staging
- We identified considerations for casualty AAR

17. Check on Learning

- What actions are needed to prepare for evacuation?
- What does casualty staging involve?

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Annex A: United Nations Policy References

This manual was developed and delivered in accordance with the United Nations training framework, in particular:

- United Nations, Department of Peacekeeping Operations/Department of Field Support. *Policy. Operational Readiness Assurance and Performance Improvement* Ref. 2015.16
- United Nations, Department of Peacekeeping Operations/Department of Field Support. *Policy. Training for all United Nations Peacekeeping Personnel* Ref. 2010.20
- United Nations, Department of Peacekeeping Operations/Department of Field Support. *Standard Operating Procedure. Training of Trainers* Ref. 2009.24
- United Nations, Department of Peacekeeping Operations/Department of Field Support. *Guidelines. Design, Delivery and Evaluation of Training (Training Cycle)* Ref. 2014.3
- United Nations, Department of Peacekeeping Operations/Department of Policy Evaluation and Training. Integrated Training Service. Members States Support Team. *Standard Operating Procedures. Training of Trainers (DRAFT)* 2012

Annex B: AMENDMENTS

Number	Subject	Brief Description	Date of Effect

Draft

Annex C Changes between TCCC and FMAC

The UN equivalent to Tactical Combat Casualty Care (TCCC) = UNITED NATIONS TACTICAL COMBAT CASUALTY CARE (UN TCCC)

The UN equivalent to TCCC Combat Lifesaver = Field Medical Assistant (FMA)

The UN equivalent to the TCCC 9-Liner Medical Evacuation = UN Evacuation 4 Liner

The UN equivalent to TCCC DD Form 1380 = UN Casualty Card

The UN equivalent to TCCC CASEVAC (MEDEVAC & TACEVAC) = UN CASEVAC

The UN equivalent to TCCC Joint First Aid Kit (JFAK) = Buddy First Aid Kit (BFAK)

The UN equivalent to TCCC Combat Lifesaver Bag (CLS Bag) = UN Trauma Pack (UNTP)

The UN equivalent to TCCC Combat / Combatant = Peacekeeping / Peacekeeper

The UN equivalent to TCCC Combat Wound Medication Pack (CWMP) = Wound Medication Pack (WMP)

Annex D: ACKNOWLEDGEMENTS

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