UN FIELD MEDICAL ASSISTANT

Course Handbook

First Edition 2022

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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 Care Assistant Course Handbook* is based heavily on the US Department of Health, 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 TACTICAL FIELD MEDICAL AID (TFMA)

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) = **Tactical Field Medical Aid (TFMA)**
- 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 Tactical Field Medical Aid**
  - **EO1** Demonstrate the application of TFMA skills in a combat peacekeeping or non-combat peacekeeping scenario (Comprehensive Module Practical Exercise)

- **TO2 Describe the practice of TFMA**
  - **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 TFMA Phases of Care, and how intervention priorities differ in each phase
  - **EO4** Describe the application of TFMA in combat peacekeeping and non-combat peacekeeping settings across different environments
  - **EO5** Describe the role and responsibilities of a nonmedical UN member in rendering TFMA care
  - **EO6** Identify the key factors influencing TFMA
  - **EO7** Identify the importance of TFMA training
  - **EO8** Identify three objectives (or goals) of TFMA

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 TFMA
- ❑ 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 TFMA

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 TFMA

- 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 TFMA Training

TFMA 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 TFMA

1. Treat the casualty

2. Prevent additional casualties

3. Complete the mission

13. Enter Peacekeeping Operations

14. Three Phases of TFMA

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 TFMA 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 plan before moving a casualty

17. Phase 2: Tactical Field Aid MARCH PAWS

***DURING* LIFE-THREATENING**

- **M**ASSIVE BLEEDING
- **A**IRWAY
- **R**ESPIRATION

- **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 PREPERATIONS 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 TFMA

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 TFMA?
- What are the phases of care in TFMA?
- 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?

Notes

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 TFMA 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?

Notes

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 TFMA Guidelines**
  - **EO14** Describe the role of fire superiority and threat containment on TFMA.
  - **EO15** Describe the actions required before engaging with a casualty to prevent harm or additional casualties in accordance with TFMA 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 TFMA

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 TFMA 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 There is **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 TFMA-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

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

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

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?

Notes

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 TFMA 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 TFMA

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 TFMA 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 are MARCH PAWS?

Notes

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 TFMA 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 TFMA Guidelines
  - EO36 Demonstrate the appropriate actions and interventions used during a casualty assessment to render aid to the casualty in accordance with TFMA 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

6. Tactical Trauma Assessment "Fire Flight Conscious Casualty"

Video can be found on DeployedMedicine.com

7. Tactical Trauma Assessment "Explosion Unconscious Casualty"

Video can be found on 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 TFMA 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 BREATH 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 Massive haemorrhage

A

Reassess Airway

R

Reassess Respirations

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

Tactical Trauma Assessment

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 pneumonic is used to prioritize care during the TTA?
- What is a blood sweep?

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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 TFMA 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 TFMA-recommended limb tourniquet
  - EO41 Identify risks associated with applying an improvised limb tourniquet
  - EO42 Demonstrate the application of a TFMA-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 TFMA

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 TFMA 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

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
- TFMA-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

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

- TFMA-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

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

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

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

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?

Notes

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 TFMA 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

M A R C H

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

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

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 BREATH 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?

Notes

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 TFMA 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

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

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

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?

Notes

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 TFMA 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 TFMA

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 TFMA 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

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

- TFMA 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

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?

Notes

MODULE 10

Shock Recognition

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

- **T11 Describe shock assessment in Tactical Field Care in accordance with TFMA 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

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 bottle1/2 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
31/2 bottles full, 11/2 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
21/2 bottles full and 21/2 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?

Notes

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 TFMA 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

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?

Notes

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 TFMA 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 TFMA

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 TFMA 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?

Notes

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 TFMA Guidelines**
  - **EO71** Identify basic care of an eye injury in accordance with TFMA Guidelines
  - **EO72** Demonstrate the application of a rigid eye shield to a trauma casualty in Tactical Field Care

4. Three Phases of TFMA

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 TFMA 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

7. When to Suspect a Penetrating Eye Injury

1. **Bleeding surrounding** the eye, **inside** the eyeball; or **coming from** the eyeball
2. **Obvious penet**ration 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

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.

Notes

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 TFMA 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 TFMA 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 TFMA

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 TFMA 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 antibiotics

3 meloxicam anti-inflammatories

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

9. Antibiotics Overview

ANTIBIOTICS ADMINISTRATION

FMA may ONLY assist a Medic

Video can be found on 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 TFMA 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 TFMA

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 TFMA 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 TFMA 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 TFMA guidelines
  - EO85 Demonstrate techniques used to prevent heat loss in a severe burn casualty in accordance with TFMA guidelines

4. Three Phases of TFMA

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 TFMA 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

- Submerse 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

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?

Notes

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 TFMA 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 TFMA

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 TFMA 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

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?

Notes

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 TFMA 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 TFMA

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 TFMA 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:
  - **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

8. AVPU Assessment How-To

Video can be found on DeployedMedicine.com

9. Checking Pulse

ASSESSING RADIAL & CAROTID PULSE
Video can be found on 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?

Notes

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 TFMA 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 TFMA 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 TFMA

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

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?

Notes

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 TFMA 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 TFMA

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 TFMA 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-roping 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?

Notes

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
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Annex B: AMENDMENTS

Number	Subject	Brief Description	Date of Effect

Annex C Changes between TCCC and FMAC

The UN equivalent to Tactical Combat Casualty Care (TCCC) = Tactical Field Medical Aid (TFMA)

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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j) O'Kelly, A. De Mello, W. et.al (2017). *Remote & Austere Medicine – Field Guide for Practitioners*, Malta, College of Remote and Offshore Medicine.

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