

Arizona Peace Officer Standards and Training

Basic Curriculum Lesson Plan

LESSON TITLE: FIRST AID - IFAK 8.1

SUBJECT:	First Aid - Individual First Aid Kit (IFAK)
AGENCY DESIGNATION:	8.1.22
HOURS:	5
COURSE CONTENT:	For Military and law enforcement, Tactical Combat Casualty Care, TCCC is considered the standard of care in pre-hospital medicine prior to the arrival of traditional EMS. This is what keeps you alive after you have been injured or shot.
PERFORMANCE OBJECTIVES:	<p>At the conclusion of this 5.0-hour block of instruction, using information presented in the lecture and in the PowerPoint Presentation; the student will:</p> <ul style="list-style-type: none">8.1.22.1. Identify Bloodborne Pathogens and Personal Protection Equipment.8.1.22.2. Identify the IFAK and its contents.8.1.22.3. Identify key components of the history of TCCC and wound ballistics.8.1.22.4. Identify and demonstrate proper care under fire, patient movements, and tactical field care in a law enforcement environment.

DATE FIRST PREPARED: May 2022

PREPARED BY: Ed Bissonnette AZDPS Air Rescue DATE: May 2022

REVIEWED BY: DATE:

REVIEWED/REVISED: DATE:

REVIEWED/REVISED: DATE:

AZPOST APPROVAL: Lori Wait DATE: May 2022

INSTRUCTOR REFERENCES:

CLASS LEVEL: Student

TRAINING AIDS: PowerPoint, IFAK kits

INSTRUCTIONAL STRATEGY:

SUCCESS CRITERIA: 70% or greater on a multiple choice written test, successful classroom demonstrations.

DATE RELEASED TO THE SHARE FILE: August 2023

I. INTRODUCTION

- A. Instructor introductions and qualifications.
- B. Review Performance objectives.
 - 1. Video Example of TCCC necessity and the reason why we train. **INSTRUCTOR NOTE:** *Video TX DPS/TQ application. Video of officer shot in crossfire/TQ application.*
- C. Purpose the class/Motivator.
 - 1. Law Enforcement, Tactical Combat Casualty Care, T-CCC is considered the standard of care in pre-hospital medicine prior to the arrival of traditional EMS.
 - 2. This is what keeps you alive after you have been injured or shot. **INSTRUCTOR NOTE:** *Discuss the options of carrying the TQ on your person verses in a vehicle.*

II. BLOODBORNE PATHOGENS

- A. Bloodborne Pathogens: **P. O. 8.1.22.1**
 - 1. Bloodborne Pathogens are pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to; Malaria, Brucellosis, Syphilis, Hepatitis B & C, Human Immunodeficiency Virus (HIV), Tuberculosis, MRSA, and Meningitis.
 - 2. Bloodborne pathogens are transmitted in human body fluids, to include but not limited to: semen, vaginal secretions, cerebrospinal fluid, amniotic fluid, saliva, or any bodily fluid that is visibly contaminated with blood.
- B. Personal Protection Equipment:
 - 1. Personal Protective Equipment (PPE) is specialized clothing or equipment worn by an employee for protection against bloodborne pathogens. General work clothes (i.e., uniforms, pants, and shirts) are not personal protective equipment.
 - 2. PPE includes: gloves, masks, eye protection, face shields, or other protective body clothing. In addition, resuscitation bags, mouth shields, and ventilation devices are considered PPE.
 - 3. Gloves should be worn when it can be reasonably anticipated that the employee may have hand contact with blood, or other potentially infectious materials.

C. Post Exposure Plan/Protocol:

1. In the event an employee or an officer becomes exposed to a bloodborne pathogen, they must report the exposure to their supervisor.
2. The employee and supervisor must complete an exposure form per their department guidelines or orders.
3. This report must be filed no later than (10) calendar days after exposure.
4. The employee must file a worker's compensation claim with the Industrial Commission of Arizona, no later than one year from the date of diagnosis or positive blood test if they wish to receive benefits under the worker's compensation system.

D. Additional Bloodborne Pathogen Considerations:

1. Never attempt to recap a contaminated sharp. (i.e., needles)
2. Always discard contaminated sharps in proper containers, never put them in trash cans.
3. If an Officer's uniform is contaminated by blood on scene, consider removing the clothes when possible to mitigate further exposure.
4. Consider keeping a change of clothes and an additional pair of shoes in your patrol vehicle in the event you are exposed and need to remove contaminated clothing.
5. When possible seek directions of on scene medical personnel for additional decontamination or help cleaning exposed areas.

III. INDIVIDUAL FIRST AID KIT (IFAK)

P.O. 8.1.22.2

A. Description:

1. Small MOLLE system pouch issued by your agency. (Show picture of an IFAK and contents)
2. Grab your IFAK to go through it.

B. You should have the following contents, but not limited to:

1. Quikclot Combat Gauze. (3 in x 4 yards)
2. C-A-T Tourniquet. (Combat Application Tourniquet)
3. Asherman Chest Seal or HALO Chest Seal.

4. NARP Emergency Trauma Dressing.
 5. Trauma Shears.
 6. CPR Microshield/ PHX PD MOUTH SHIELD.
 7. Nitrile Gloves.
- C. Brief instructions for Use:
1. Nitrile Gloves.
 - a. Important to use on all injured subjects to assist in preventing transmission of disease and infection from person to person.
 - b. Carry appropriate size.
 - c. Change gloves as needed when soiled.
 - d. To remove, pull one glove off by the cuff at the wrist. Place the glove in the palm of the other hand and remove the second glove in the same manner.
 - e. Dispose of gloves as a biohazard.
 - f. Wash hands thoroughly after every use.
 2. CPR Microshield.
 - a. Insert the CPR Microshield airway tunnel into the subject's mouth.
 - b. Place fingers under the shield portion of the CPR Microshield and pinch the nasal passages closed.
 - c. Obtain an open airway with the recommended head tilt / chin lift method or modified jaw thrust.
 - d. With the shield providing protection, form a seal around the subject's mouth.
 - e. Proceed with CPR ventilation using approved technique.
 - f. Look for visible chest rise.

3. PHX PD CPR SHIELD
4. Trauma Shears.
 - a. Used to remove clothing on an injured subject.
5. Asherman Chest Seal or Halo Chest Seal.
 - a. Clean and dry the area around the wound.
 - b. Remove the protective liner from the adhesive coated surface.
 - c. Place the dressing on the subject, adhesive side down, with a valve directly over the wound.
 - d. Press base of dressing firmly in place to assure occlusive seal.
6. NARP Emergency Trauma Dressing.
 - a. Open the package and place the sterile non-adherent pad over the wound.
 - b. Wrap the bandage tightly over the pad starting at the end of the pad furthest from the torso.
 - c. Additional pressure can be placed on the wound by placing a twist in the wrap over the pad.
 - d. Finish wrapping the bandage around the wound and use the C-clamps to secure the bandage in place.
7. Quikclot Combat Gauze.
 - a. Open the package and remove Combat Gauze. Keep the empty package.
 - b. Pack Combat Gauze into the wound and use it to apply pressure directly over the bleeding source. (More than one Combat Gauze may be required.) (IFAK might have additional S-Rolled Gauze)
 - c. Continue to apply pressure for 3 minutes to 10 minutes or until bleeding stops.
 - d. Wrap and tie bandages to maintain pressure.
 - e. Can apply Pressure Dressing over the Combat Gauze.

8. C—A—T Tourniquet (Two-Handed Application)
 - a. Apply tourniquet proximal (above) to the bleeding site. Route the band around the limb and pass the tip through the inside slit of the buckle. Pull the band tight.
 - b. Pass the tip through the outside slit of the buckle. The friction buckle will lock the band in place.
 - c. Pull the band very tightly and securely fasten the band back on itself.
 - d. Twist the rod until bright red bleeding has stopped and the distal pulse is eliminated.
 - e. Place the rod inside the clip; locking it in place. Check for bleeding and distal pulse. If bleeding is not controlled, consider additional tightening or applying a second tourniquet proximal (above) side by side the first and reassess.
 - f. Secure the rod inside the clip with the strap. Prepare the patient for transport and reassess. Record the time of application.

9. C—A—T Tourniquet (One-Handed Application)
 - a. Apply the tourniquet proximal (above) to the bleeding site. Insert the wounded limb through the loop formed by the band.
 - b. Pull the band very tightly and securely fasten the band back on itself.
 - c. Adhere the band around the limb. Do not adhere the band past the rod clip.
 - d. Twist the rod until bright red bleeding stops and the distal pulse is eliminated.
 - e. Place the rod inside the clip locking it in place. Check for bleeding and distal pulse. If bleeding is not controlled, consider additional tightening or applying a second tourniquet proximal (above) side by side to the first and reassess.
 - f. Adhere the band over the rod, inside the clip, and fully around the limb.
 - g. Secure the rod and band with the strap. Prepare for transport and reassess. If possible, record the time of application on white strap.

IV. AGENCY SUPPLIED FIRST AID BAG

- A. For providing First Aid to the public.
 - 1. Multiple varieties of bags, but similar contents.
 - 2. First Aid supplies need to be checked and/or replaced annually to ensure they are in usable condition.
- B. Inspection:
 - 1. Look for packaging that is torn, ripped or discolored.
 - 2. If you need anything replaced; get with your individual districts to obtain supplies.
INSTRUCTOR NOTE: Look for the integrity of the packaging, discoloration, or open exposing contents to the elements.

V. HISTORY OF THE TACTICAL COMBAT CASUALTY CARE (TCCC)

P. O. 8.1.22.3

- A. What is T-CCC? (Tactical Combat Casualty Care)
 - 1. This is what we expect you to do to keep yourselves or other Officers alive and in the fight until EMS arrives.
 - 2. This includes using combat proven methods to prolong life.
 - 3. It is not an attempt to make you into medics, just enough to keep you alive.
- B. TCCC has 3 phases, we will primarily discuss the first 2 phases.
 - 1. Care under Fire.
 - 2. Tactical Field Care.
 - 3. Casualty Evacuation, usually done by the local EMS.
- C. Why does this apply to me as a Law Enforcement Officer? ***INSTRUCTOR NOTE:*** LVMPD Video, Officer applying a TQ on a suspect. Discuss Blood loss, high stress TQ application.
 - 1. You may be injured, shot, stabbed or bitten by a K9.
 - 2. You may respond to a downed officer who has been injured, shot, stabbed or bitten by a K9.

3. You may respond to an active shooter incident where multiple people have been injured, shot or stabbed. **INSTRUCTOR NOTE:** *Discuss the necessity to carry gloves on your person while on-duty.*
 4. A national standard is being developed with an expectation for officers, deputies and troopers to have lifesaving tools and a knowledge of how and when to use these tools, i.e. tourniquets, hemostatic agents and chest seals. One of the 7 Foundational Principles of Policing is that we have a duty to render aid.
 5. EMS Rescue Task Forces.
 - a. EMS, Fire or other rescue personnel that will respond first to an active shooter.
 - b. These task forces expect to be escorted by Law Enforcement personnel, providing lethal cover, into the hot zone to start medical treatment.
 - c. If there is no active threat and multiple patients, they may ask you to assist with IFAK treatment.
 - d. This is happening state-wide and nationally.
 6. National Stop The Bleed program through DHS.
 - a. Very similar to the IFAK program.
 - b. Being taught in schools, colleges, businesses and other locations.
 - c. Adding IFAK kits to AED boxes.
- D. History of T-CCC.
1. Where did it come from?
 - a. Driven from military forces in combat. Started in the U.S. Army Ranger Battalions which resulted in Rangers having the lowest casualty rates in the U.S. Military.
 - b. Shortage of trained medical personnel in small units.
 2. Where did it start and why?
 - a. Extensive loss of life due to blood loss.
 - b. It is unacceptable for a patient to die from **preventable** extremity blood loss.
 3. What is the Committee on T-CCC?

- a. Designed to speed the process of lessons learned from the military to the civilian sectors.
 - b. Research new equipment and create or modify guidelines as appropriate.
4. How do we know that it is effective and appropriate?
- a. How do you know you are doing the right thing, chest seal vs no chest seal for example?
 - b. How do you know the procedure you have done is working effectively?
INSTRUCTOR NOTE: Video of femoral Artery bleed. Note high and tight TQ. Not all injuries need a TQ despite how they look. Show picture of arm injury.
 - i. Assess.
 - ii. Is the patient getting better?
 - iii. Is the patient getting worse?
 - iv. Is the bleeding controlled?
 - v. Reassess.
 - vi. Has the patient's condition changed in any way?
 - vii. Did I mention to reassess, not only the patient but also anything you have done to help them, Tourniquet for example.
 - viii. Then check again anytime the patient is moved—reassess.
5. How do you learn more about this topic?
- a. Law Enforcement First Responder course.
 - b. N.A.E.M.T. web site, for PowerPoints and videos.
 - c. Deployedmedicine.com.
 - d. Talk with an Air Rescue Medic at the base closest to you.
6. What is MARCH?
- a. What is MARCH and why do we use it instead of the ABC's we were all taught?

- i. MARCH puts massive hemorrhage or bleeding before Airway since it has been proven to kill you first and only takes seconds to apply a tourniquet.
 - ii. Decreases the possibility of a patient bleeding out.
 - iii. Decreases mortality rates.
 - b. History of MARCH.
 - i. Has been a concept growing since the early 1990's.
 - ii. Came from T-CCC.
- 7. (M) Massive Hemorrhage
 - a. You have to find it first with a Blood Sweep.
 - b. What is a blood sweep? ***INSTRUCTOR NOTE:*** *Video example of blood sweep. Discuss blood sweep verses rake in low light.*
 - i. Blood sweep is a method to detect an injury or trauma to the body.
 - ii. Why do we do a blood sweep?
 - a). To find wounds that are actively bleeding day or night with or without fine motor skills.
 - b) So that no life-threatening wound is missed.
 - c) We should also be performing this on ourselves after a violent incident.
 - b. How do we correctly do a blood sweep?
 - i. Look at your hand to make sure there is no obvious blood on it.
 - ii. Sweep that hand over a limb, its recommended to use weak side arm and run your hand down the outside of the arm, look at your hand, is there now new blood on it, if you find a wound, stop and treat it, then continue sweep.
 - iii. Sweep that same hand over the opposite side of the same limb and repeat the process. You do this to all 4 limbs, the head, neck, chest, abdomen, pelvis and repeat on the back side from head to toe.

8. If you find a wound, stop, treat it, and continue the sweep.
 - a. Tourniquet Application.
 - i. Junctional wound packing at junctional areas.
 - ii. Can be used on extremity wounds.
 - a) Make sure you get the source of the bleeding.
 - b) Use all the packing.
 - c) Cover the packing with a pressure bandage.
 - d) Reassess frequently.
 - b. (A) Airway.
 - i. Obstructions.
 - ii. Blood.
 - iii. Vomitus.
 - iv. Teeth.
 - vi. Dirt or debris, especially with IED's.
 - c. Positioning.
 - i. Head tilt, chin lift. **INSTRUCTOR NOTE:** *Video of head tilt, chin life versus jaw thrust.*
 - ii. Modified jaw thrust if possible neck or head injury.
 - d. (R) Respirations.
 - i. Chest Seals.
 - a) From top of shoulders to the belly button.
 - b) All the way around the body to include sides and back.
 - ii. Tension Pneumothorax. **INSTRUCTOR NOTE:** *show illustration of tension*

pneumothorax.

- a) What is a tension pneumothorax?
 - b) Simply a collection of air between the lung and chest wall due to injury. The lung collapses as shown as more air enters the chest area.
 - c) As more air enters the chest area, the heart can collapse also.
- iii. How does it present signs and symptoms?
- a) Increased pulse, increased working of breathing.
 - b) Pale color, bluish lips, diminished breathing.
- iv. How do we treat it at the Law Enforcement level?
- a) Allow the officer to get into a comfortable position, but laying down.
 - b) If open wound, Ascherman Chest Seal or HALO Chest Seal, and reassess or burp if necessary.
 - c) If non-opened and suspected refer to a higher level of medical care.
- e. (C) Circulation. **INSTRUCTOR NOTE:** *Illustration of adult blood loss and volume. Discuss considerations with LEO after blood loss and confused state/delirium*
- i. Any other bleeding.
 - a) Internal.
 - b). External.
 - ii.. Pressure Dressings.
 - iii. Fluid Replacement.
 - a) Oral.
 - b). Drinking water.
- g. (H) Hypothermia/Head Injury.

- i. Keep the patient warm.
- ii. Prevent additional brain injury.

VI. WOUND BALLISTICS

P. O. 8.1.22.3

A. Wound Ballistics. **INSTRUCTOR NOTE:** *Picture examples and videos of different injuries and trauma from different calibers.*

- 1. Why is it relevant to Law Enforcement Officers?
 - a. Gives a better understanding to the extent of injuries.
 - b. An understanding of organs that may be injured away from or around the site of injury.
- 2. Low Velocity Weapons.
 - a. Handguns.
 - b. Knives.
- 3. High Velocity Weapons.
 - a. Rifles.
 - b. IED projectiles.
- 4. Blunt Trauma.
 - a. Vehicle crash.
 - b. Falls.
 - c. Impact wounds from objects, thrown rocks or baseball bat, baton, etc.

VII. TCCC IN THE FIELD

P.O. 8.1.22.4

- A. Care under fire:
 - 1. Return fire.
 - a. Use directed fire if necessary and available.

- b. Eliminate the threat. **INSTRUCTOR NOTE:** Discuss the concept of directed fire.
- 2. Get off the X.
 - a. Get behind cover.
 - b. Call for assistance and get help coming.
- 3. Tourniquet application.
 - a. High and tight.
 - b. Over clothes.
 - c. If you think you should apply a tourniquet, the answer is yes.
 - i. Will not cause serious damage.
 - ii. Can be removed later if needed. (Doctors are who decides this)
 - d. Self-Application. **INSTRUCTOR NOTE:** Video of TQ application using a C-A-T.
 - i. Upper extremity, both sides.
 - ii. Lower extremity, both sides.
 - e. Buddy Application.
 - i. Upper extremity.
 - ii. Lower extremity.
- 4. Patient movements.
 - a. Multiple styles and types depending on threats, terrain, vegetation, physical condition, patient size and distance to travel and personnel on scene.
 - b. We will discuss 3 basic carries, single person, 2 person and 3 person.
 - i. Single-person. (Video examples)
 - a) For use when you will move patients with no assistance.
 - b) Quickly done, with no or minimal equipment.

- c) Not able to provide its own directed fire if needed.
 - d) Danger of tripping since walking backwards.
 - e) Difficult to travel long distances.
 - ii. Two-person. (Video examples)
 - a) For use when you have someone to assist you.
 - b) Quickly done, minimal coordinating.
 - c) Can move over debris and areas of difficult terrain easier.
 - d) Still not able to provide good directed fire if needed.
 - 3. Three Persons. (Demonstrate)
 - a. When the manpower allows
 - b. Requires quick discussion on the plan
 - c. Can move longer distances and over difficult terrain or debris.
 - d. Can provide directed fire onto threats if required.
 - 4. Other options. (Picture examples. Discuss considerations when moving officers with significant injuries.)
 - a. Improvised webbing harness.
 - b. Backboard from EMS.
 - c. Poleless litters.
 - d. Improvised litters, think outside the box.
- B. Tactical Field Care.
- 1. Hemostatic Agents.
 - a. What are hemostatic agents:
 - i. Quikclot, celox, hemcon, chitoflex, etc. (TQ video, Quickclot video)

- ii. Tourniquets fall under this category.
 - iii. We use Quikclot (in the form of combat gauze) in our IFAK Kits, TCCC approved and recommended and combat tested. (Powdered Quikclot is no longer in use)
 - iv. How does it work?
 - a) Needs to be at the site of a bleeding, injured vessel.
 - b) Requires direct pressure for a minimum of 3-10 minutes, preferably until EMS arrives on scene.
2. Chest Seal Application and Management. (Video of chest seal)
- a. What is a chest wound?
 - i. Identify where on the body a chest seal should be applied, demonstrate.
 - a) Shoulders to belly button.
 - b) Front sides and back.
 - b. Ascherman Chest Seal and Halo Chest Seals. (Video example of burping a chest seal)
 - i. Application and use.
 - ii. When and how to burp a Chest Seal.
 - a) Lift corner of dressing.
 - b) Listen for air release or improvement.
 - c) May need to move the wound some.
 - d) Re-seal the wound.
3. Pressure Dressings. (Video of neck dressing.)
- a. When and how to apply pressure dressings to extremities, abdomen, chest, neck and head.
 - i. Demonstrate a dressing to the neck.

- ii. Demonstrate a dressing to the abdomen.
 - iii. Demonstrate a dressing to an extremity.
 - 4. Recovery Positions/Hypothermia Care. (Photo examples)
 - a. Place the patient in the recovery position.
 - i. Patient on side.
 - ii. Top leg drawn up.
 - iii. Bottom arm straight under head.
 - iv. Top arm bent under head.
 - v. Demonstrate the recovery position.
 - b. Protect the patient against hypothermia.
 - i. Space blankets out of first aid kits or commercial blankets.
 - ii. Remember ground and wind removes heat from a patient quickly even in a hot desert.
 - c. Prevent further head injury if one has been sustained.
 - i. This is done by stopping bleeding.
 - ii. Ensure an open airway and adequate breathing.
 - iii. Good recovery position.
 - iv. Keeping the patient warm.
 - v. Getting EMS there ASAP.
- C. Tactical Evacuation Plan. ***INSTRUCTOR NOTE:*** *You might have to secure first. You need to make sure you don't become a secondary victim or get pulled into an ambush.*
 - 1. Is the scene secure?
 - a. Yes, bring EMS to treat patients.

- i. What is the route you want EMS to enter and exit the scene?
 - ii. Remember they don't think about evidence.
 - b. If the answer is No.
 - i. How are you going to bring the patient to EMS, while the scene is being secured by other officers?
 - ii. Take a patient to them in a Patrol car for example.
2. Downed officer to Fire Department or self-transport to Hospital?
 - a. Downed Officer close to a Trauma Hospital, central Phoenix as example? (AZDPS Trooper Seth Meeske driving himself to the hospital after being shot in Payson.)
 - i. Is this faster than EMS?
 - ii. How long does it take for EMS to get to you in your area?
 - iii. Could 5-10 minutes in Metro, what about outlying areas?
 - b. Downed Officer in rural location, where is EMS coming from, ETA?
 - c. Known EMS helicopter landing zones?
 - d. Helicopter response?
3. Fire Department to downed officer.
 - a. Route in and out to avoid known threats.
4. Trauma Center vs. Nearest hospital.
 - a. What is the difference between a Trauma Center and a regular hospital?
 - b. Levels of Trauma Centers in your area of responsibility.
 - c. Closest Trauma Center.
 - d. Closest Burn Center.

VIII. PRACTICAL DEMONSTRATIONS CONDUCTED DURING CLASS

- A. CAT Applications.
 - 1. As a class.
 - 2. Apply CAT Tourniquets to:
 - a. Arm.
 - b. Leg.
 - c. Bodies Arm.
- B. Pressure Dressing.
 - 1. As a class;
 - 2. Apply pressure dressing to:
 - a. Arm.
 - b. Neck.
- C. Patient Movement Demonstrations.

XI. CONCLUSION

- A. Review of performance objectives.
- B. Final questions and answers.
- C. Instructor closing comment(s).