

Chino Police Department
Blood borne Pathogens / First Aid / CPR-AED/IFAK
Course Outline

I. Introduction/Registration

A. Registration

1. Paperwork
 - a. POST (if applicable)
 - b. Department
 - c. Class Roster

B. Introduction

1. Instructors
2. Course overview
 - a. Provide a syllabus
3. Student Expectations
 - a. Demonstrate Proficiency

II. Blood borne Pathogens

A. Introduction

1. Relevant CPD policies
 - a. 388.3, 388.8, & 388.10 – requirements for BBP training
 - b. 388.6, 388.7, & 388.9 – requirements for reporting, investigation, recording, and correction
2. Reference to OSHA standards via given web address

B. Course Overview

1. Characteristics of bloodborne pathogens (BBPs)
2. Characteristics of other potentially infectious materials (OPIM)
3. Routs of transmissions of infectious agents
 - a. Exposure control and prevention methods
 - b. Infectious or biomedical waste disposal procedures
 - c. How to address accidents and injuries when working with BBPs and OPIMs
4. Managing biohazard waste

C. Universal (Standard) Precautions

1. Definition
 - a. “Precautions to protect against exposure must be taken when there is any potential for exposure to bodily fluids. It is assumed that all bodily fluids have the potential to transmit disease”
2. The Universal Precaution Rule:
 - a. Treat all human blood, bodily fluids and other potentially infectious materials as if they are infectious.

D. Bloodborne Pathogens (BBP)

1. Bloodborne pathogens (BBP) are specific microorganisms transmitted in human blood or bodily fluids, which can cause disease in people.
2. Three major types of BBPs:
 - a. Hepatitis B (HBV)
 - b. Hepatitis C (HCV)
 - c. Human Immunodeficiency Virus (HIV)

E. Other Potentially Infectious Materials (OPIM)

1. Types of OPIM
 - a. Bacteria, Fungi, Rickettsia, Parasites, Prions
 - b. Other Viruses, including oncogenic (cancer causing) viruses, Epstein Barr Virus (Mononucleosis)
 - c. Human bodily fluids, tissue and organs
 - d. Hepatitis D

F. Risks of Contacting BBPs

1. HIV
2. HBV
3. HCV

G. Routes of exposure for BBPs and OPIM

1. Needles or contaminated sharp injuries
 - a. Most common means of exposure
 - b. 600,000 to 800,00 exposures occur annually
2. Transmitted through mucous membranes
 - a. Eyes, Nose, Mouth
3. Additional routes of transmission
4. Skin as a barrier.
 - a. Unbroken skin is a good barrier. However, infectious materials can enter your system through skin openings such as:
 - i. Open sores, Cuts, Abrasions, Acne, Sunburn, Blisters

H. Exposure Control

1. Universal (Standard) Precautions
2. Personal Protective Equipment (PPE)
 - a. Gloves
 - b. CPR masks
 - c. Ambu Bag/Mask
3. Safe and cautious handling of sharps and contaminated material
4. Hand Hygiene
 - a. *Most common mode of transmission of pathogens is via hands!*
 - b. Wash your hands:

- i. immediately, or as soon as feasible, after removal of gloves or other PPE
 - ii. before eating and facilities use
 - iii. following contact with blood or other potentially infectious material
- 5. Proper donning, doffing, and disposal of gloves
 - a. Demonstration
 - b. Practical Exercise

I. Managing biohazard waste

- 1. Wear proper PPE whenever handling or processing biohazard waste
- 2. Use sharps containers
- 3. Use AMR, CVFD, and CVMC disposal bags and/or containers

III. First Aid

A. External Bleeding

- 1. Direct Pressure
 - a. Until bleeding stops or EMS arrives
 - b. Must be firm and maintained for long period
- 2. Manual Pressure
 - a. Apply pressure with gauze
 - b. Do not remove (platelets)
 - c. If bleeding continues, add more gauze
 - d. Apply pressure bandage if possible
- 3. Tourniquet
 - a. Last resort measure
 - b. Apply two inches above wound
 - c. Tighten until bleeding stops
- 4. Avulsion
 - a. Put avulsed part in place before pressure
 - b. Keep avulsed part

B. Internal Bleeding

- 1. Treat for shock
- 2. Reassure the victim

C. Choking

- 1. Universal signs for choking
 - a. Hands clutched to throat
- 2. Additional Choking Indicators
 - a. Inability to talk
 - b. Difficulty breathing or noisy breathing
 - c. Inability to cough forcefully
 - d. Skin, lips and nails turning blue
 - i. Loss of consciousness

3. Abdominal thrusts (Heimlich)
 - a. Stand behind the person choking
 - i. Wrap arms around waist, tipping forward slightly
 - b. Make a fist with one hand
 - i. Position it slightly above persons naval
 - c. Grasp the fist with the other hand
 - i. Press hard into the abdomen with upward thrust
 - ii. As if you're trying to lift them up
 - d. Repeat until object is dislodged or person is unconscious
 - i. If the person becomes unconscious, begin CPR
4. Abdominal thrusts – unconscious person
 - a. Lower person onto their back on the floor
 - b. Clear the airway
 - i. If there is a visible blockage, remove with finger sweep being careful not to lodge object deeper
 - c. Begin CPR
 - i. If there is no response from the above
5. Abdominal thrusts – self
 - a. Place one fist slightly above the naval
 - b. Grasp fist with other hand and bend over a hard surface
 - i. Countertop or chair will suffice
 - c. Shove fist inward and upward
5. Abdominal thrusts – Infants
 - a. Hold infant face down on your forearm
 - b. Thump the infant five times on the middle of the back using the heel of your hand
 - i. Back blows and gravity should release object
 - c. If unsuccessful, hold infant face up on forearm
 - i. Using two fingers placed at the base of the infant's breastbone, give five quick chest compressions.
 - d. Repeat the back blows and chest thrusts
 - e. Begin CPR if on the techniques opens the airway, but the infant doesn't resume breathing
 - f. If the child is older than age 1, give abdominal thrusts only

D. Medical Problems

1. Shortness of Breath
 - a. Respiratory Emergency
 - i. If the patient has prescribed medications we may assist the patient in obtaining the medications. If the patient takes medications, such as albuterol inhalers, take note of the medication and quantity of use to pass on to responding paramedics.
 - b. Hyperventilation
 - i. Help the victim to a position of comfort and encourage to relax and take steady rhythmic deep breaths.

c. Allergic Reaction

- i. To include, Medications, Animals, Bee Stings, and Food Allergies
- ii. If the patient has prescribed medications Officers may assist the patient with taking their medications.
- iii. Epinephrine shots: are prescribed by a doctor and are generally spring loaded where one end of the device is pressed against the thigh and automatically inserts the syringe into the muscle. Once the medication has been administered the syringe mechanism automatically depresses and conceals itself back into the tube. These Epinephrine shots will have pictures and directions on the shot for their specific use.

3. Chest Pain

- a. Congestive Heart Failure: occurs when the lungs fill with fluid. If assisting a patient suffering from Congestive Heart Failure understands that they are drowning on their own fluid buildup in the lungs. Have this patient sit up to a position of comfort. This patient will become violent if you try to lay them down as it will worsen the drowning sensation.
- b. Heart attack:
 - i. Physical symptoms include:
Sweating, pale skin, or cold to the touch, or abnormal heart beat, shortness of breath
 - ii. Verbalized symptoms include:
Preexisting heart conditions, , chest pressure, pain in the jaw, and pain in the left arm

If patient is showing / verbalizing symptoms of heart attack move to a position of comfort and monitor for breathing and circulation. If the patient has prescribed medication and can take medication we may assist them in obtaining the medication. We do not administer medications.

3. A Loss of Consciousness

- a. Shock: Is the bodies survival mode when a major body function is having issues.

i. occurs in several ways: to include blood loss, severe trauma, dehydration, heart failure, severe burns, severe allergic reaction

ii. Symptoms of shock include: Cold pale skin, rapid or weakened pulse, sweating, nervousness, disoriented, thirsty, rapid breathing, nausea or vomiting, and may result in a loss of consciousness.

iii. Treatment: If no head or neck injuries are present lay on back with legs elevated. Make sure the patient is breathing and has a steady pulse. If not begin CPR protocol. If hot attempt to cool. If cold provide a blanket, and treat for underlying issue such as excessive bleeding.

b. Diabetic

i. Insulin Shock: Occurs when the body has an elevated amount of sugar content. Symptoms include disorientation, dizziness, and possibly aggressive behavior. We can do very little other than treat for symptoms of Shock and wait for paramedics to arrive.

ii. Diabetic Coma: occurs when a diabetic patient has a lack of sugars in the body. As first responders without blood sugar testing equipment, we may not know which diabetic issue is occurring. If the patient tells you they have low blood sugar or family tells you about a low blood sugar reading you may be able to determine they suffer from Diabetic Coma issues. Symptoms include disorientation, fruity breath, acting as though they are UTI alcohol, blurry vision, acting aggressive, elevated pulse, and headache. *If the patient is conscious* we can encourage the patient to consume sugary substances such as orange juice, candy, and Glucose tablets. If the patient has lost consciousness we can treat for shock and wait for paramedics to arrive.

c. Seizure

i. Seizing patients can be aided by moving objects away from the patient, such as chairs and desks, to prevent the patient from receiving a sometimes more severe secondary injury. *We do not* insert items in the mouth of the seizing patient or attempt to physically restrain a seizing patient.

ii. When seizure has subsided, if the patient is vomiting move the patient on their side to avoid choking.

d. Fainting

i. Check for breathing and Circulation. If the patient is breathing and has circulation treat for shock and wait for paramedics.

IV. IFAK(Video)

- IFAK Contents
- 1. Trauma Sheers
- 2. Combat Application Tourniquet (CAT)
 - a. How to Apply (VIDEO)
 - b. PRACTICAL APPLICATION
- 3. Gloves
- 4. Combat Gauze(VIDEO)
 - a. “Israeli Bandage” (VIDEO)
 - b. PRACTICAL APPLICATION
- 5. Halo Seals (VIDEO)
- 6. NPA

V. CPR

A. Initial Scene Assessment

1. Crowd Control
 - a. Expect panic and hysteria
 - b. Give panicked relatives / bystanders a task
 - c. Create “Office Space”
 - i. Room to work
 - ii. Good physical foundation
2. Officer Safety
 - a. Outstanding suspects
 - b. Environmental Hazards
 - i. Fire
 - ii. Electricity
 - iii. Gas / Chemicals
 - iv. Hazmat

B. Initial Victim Assessment

1. Shake the victim and ask, “Do you need help?”
2. “Look, Listen and Feel”
 - a. Place ear over victim’s mouth and look across their chest
 - b. Look for chest rise, Listen for breathing, and Feel for breath

C. Compressions (Adult)

1. Hand placement
 - a. Center chest, even with the nipple line
 - b. Heel of one hand on the chest, the second hand intertwined on top
2. Push Hard (1.5” – 2”)

3. Push Fast (100 / min)
4. Full Recoil (Allow chest to recover between compressions)
5. Use upper body, not arms to compress the chest
6. Practical Training Exercise
 - a. Demonstrate compressions to the class on a CPR mannequin
 - b. Monitor students as they perform compressions for 2 minutes
 - c. Count compressions, teach students the appropriate rate

D. Airway (Adult and Infant)

1. Head tilt / chin lift
2. Jaw thrust (Used for possible spinal injuries)
3. Finger sweep if visible obstruction

E. Ventilations (Adult)

1. Big lungs—large volume
2. Look for chest rise
3. Pinch nose, exhale into open mouth
 - a. Use a protective barrier if possible
4. Look for chest rise
5. 30 compressions to 2 breaths
6. Practical Training Exercise
 - a. Demonstrate head tilt / chin lift and ventilations on a mannequin
 - b. Students will perform compressions, head tilt/chin lift and ventilations on a mannequin for 2 minutes using a protective barrier

F. Compressions (Infant)

1. Hand placement
2. Center chest, even with the nipple line
3. Two fingers to compress the chest
4. Push Hard (1/3 of infant's chest cavity)
5. Push Fast (100 / min)
6. Full Recoil (Allow chest to recover between compressions)
7. Practical Training Exercise
 - a. Demonstrate compressions to the class on a CPR infant mannequin
 - b. Monitor students as they perform compressions for 2 minutes
 - c. Count compressions, teach students the appropriate rate

G. Ventilations (Infant)

1. Little lungs—small volume
2. Place mouth over nose and mouth of infant
3. Use a protective barrier if possible

4. Look for chest rise
5. 30 compressions to 2 breaths
6. Practical Training Exercise
 - a. Demonstrate head tilt / chin lift and ventilations on a mannequin
 - b. Students will perform compressions, head tilt/chin lift and ventilations on a mannequin for 2 minutes using a protective barrier

VI. AED

A. Scene Assessment

1. No water
2. No metal surfaces

B. Prepare the victim

1. Must have access to bare skin on the victim's chest
2. Shave hair if necessary
3. Cut or remove clothing if necessary

C. Steps to using the AED

1. Pull off plastic face plate
2. Follow the verbal instructions from the AED
3. Remove the pads from the device
4. Place the pads where the diagram indicates
 - a. One on the right chest above the nipple
 - b. One on the left side below the nipple
5. Pads cannot touch clothing or each other
6. Follow instructions from the AED to shock or not to shock
7. If shock advised, make sure no one is touching the victim and press the red button on the device—continue CPR
8. If shock is not advised, continue CPR

VII. Required Course Paperwork and Certificate

A. Complete the AHA survey

1. Turn the survey in to the instructor

B. Complete POST portal documentation

1. Log on to your personal POST training portal <http://www.lp.post.ca.gov>
2. Click on "My Training Record"
3. Click on First Aid/CPR
4. Click on the blue highlighted portion "First Aid / CPR Skills Demo"
5. Fill in the date in the "Completion" box and click "Update"
6. Click "Back" on the top left of the screen
7. Click "Show proof of completion"
8. Print the certificate and give it to the instructor