Assumptions

- Need for CERT members to learn disaster medical operations is based on two assumptions:
  - Number of victims could exceed local capacity for treatment
  - Survivors will assist others
    - They will do whatever they know how to do
    - They need to know lifesaving first aid or post-disaster survival techniques

90% of disaster victims are rescued by other victims!
Importance of Quick Action

- Phase 1: Death within minutes, result of severe trauma
- Phase 2: Death within several hours, result of excessive bleeding
- Phase 3: Death in several days or weeks, result of infection

Unit Objectives – Learn how to:

- Identify “killers”
- Conduct TRIAGE under simulated disaster conditions
- Open airway, control bleeding, and treat for shock
Rescuer Safety During Triage

- If hazmat or terrorist event is suspected, CERT members DO NOT respond
  - Evacuate as safely as possible
- ALWAYS wear PPE:
  - Helmet
  - Goggles
  - N95 mask
  - Work gloves
  - Sturdy shoes or boots
  - Non-latex exam gloves

TRIAGE AND PPE’s

When doing TRIAGE, you MUST protect yourself and your buddy must do the same
Personal Protective Equipment - PPE

- Personal protective equipment, commonly referred to as "PPE", is equipment worn to minimize exposure to serious workplace injuries and illnesses.

Goggles

Masks

How to put on and take off Non-Latex Gloves
- Practice!
- New gloves for every victim
- Wash or sanitize hands after de-gloving
Personal Protective Equipment - PPE

IF IT’S WET AND NOT YOURS
DON’T TOUCH IT!

Three “Killers” - ABS

- Emergency medicine “killers”
  - Airway obstruction
  - Bleeding (Severe)
  - Shock (Circulatory)
- First priority of medical operations:
  - Open airway
  - Control excessive bleeding
  - Treat for shock

We will learn how to handle each of the killers later,
FIRST – let’s learn what TRIAGE is
CERT Sizeup

1. Gather Facts
2. Assess Damage
3. Consider Probabilities
4. Assess Your Situation
5. Establish Priorities
6. Make Decisions
7. Develop Plan of Action
8. Take Action
9. Evaluate Progress

REMEMBER: CERT SIZEUP IS A CONTINUAL PROCESS

What Is Triage?

TRIAGE – French term meaning “to sort”

Process for managing mass casualty event
1. Victims are evaluated
2. Victims are sorted by urgency of treatment needed
3. Victims are set up for immediate or delayed treatment
CERT Basic Training
Unit 3: Disaster Medical Operations — Part 1

START (during Search and Rescue)

HOW DO WE DECIDE URGENCY?

• STart = Simple Triage
  ▪ Victims sorted based how urgently treatment needed

• stART = And Rapid Treatment
  ▪ Rapid treatment of critical ("three killer") injuries discovered and prioritized in first phase

Remember your Priorities!

• A – Airway/Breathing

• B – Bleeding

• S – Shock (Circulatory)
### R P M’s Determine Urgency

There are 3 things to check (non-walking victims):

- **Respirations**
  - Adults (12 yrs +) under 30
  - Children (0-11) 15-45
- **Perfusion**
  - Less than 2 seconds
- **Mental Status**
  - Can follow simple directions

**Remember**

30

2

Can do

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Based on what you find with voice triage and your RPM checks you will categorize each person into 1 of 4 categories.
Triage

- **Minor (M):** Walking wounded and generally ambulatory
- **Delayed (D):** Injuries do not jeopardize victim’s life; treatment can be delayed
- **Immediate (I):** Victim has life-threatening injuries (airway, bleeding, or shock)
- **Dead (DEAD):** No respiration after two attempts to open airway

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This is the tag that WC CERT uses

You’ve been given a handout of this tag
Triage

Some groups use FLAGGING TAPE for identification purposes

Triage – Practice Categorizing Victims

- Break into groups
- Each of you should have a handout
- You will have 10 minutes to categorize 10 victims (goal is 1 minute per victim)
- Discuss results, answer questions
TRIAGE PRACTICE
ANSWERS NEXT

30-2-CAN DO

- 15. **IMMEDIATE** (red) **WHY**?
- 16. **MINOR** (green) **WHY**?
- 17. **DEAD** (black) **WHY**?
- 18. **IMMEDIATE** (red)
  
  *Perfusion greater than 2 sec, unconscious*
15. **IMMEDIATE** (red) **WHY?**
   *Perfusion (P) greater than 2 sec*

16. **MINOR** (green) **WHY?**

17. **DEAD** (black) **WHY?**

18. **IMMEDIATE** (red)
   *Perfusion greater than 2 sec, unconscious*
**30-2-CAN DO**

- **IMMEDIATE** (red) *WHY?*
  
  *Perfusion (P) greater than 2 sec*

- 16. **MINOR** (green) *WHY?*
  
  *30-2-Can Do, can walk*

- 17. **DEAD** (black) *WHY?*
  
  *unless breathing resumes, then IMMEDIATE (red) because unconscious*

- 18. **IMMEDIATE** (red)
  
  *Perfusion greater than 2 sec, unconscious*

---

**30-2-CAN DO**

- 19. **DEAD** (black) *unless breathing resumes, then IMMEDIATE (red) because unconscious*

- 20. **MINOR** (green) *30-2-Can Do, walks*

- 21*, 22*, 23, 24* **DELAYED** (yellow) *30-2-Can Do*

* Indicates special circumstances to report to Command Post
Mass Casualty: What do you do first?

- **Size up** the situation to make sure the scene is safe for you to enter and develop plan with buddy

- Conduct voice triage

- Approach remaining victims
Remember your Priorities!

- A – Airway/Breathing
- B – Bleeding
- S – Shock

In mass casualty situations we do not begin CPR or do rescue breathing.

How to Approach a Conscious Victim

- Be sure victim can see you
- Identify yourself – first name / “search & rescue”, City of Walnut Creek. I’m trained in basic first aid.
- Request permission to treat
- Respect cultural differences
- Check RPMs & Tag
If the Victim is Unresponsive

- Implied consent given by unconscious/confused
- Tap and Shout – “Can you hear me?”
- If no response and no breathing
  OPEN THE AIRWAY
Open vs. Obstructed Airway

Tongue
Open Airway
Conscious

Tongue
Obstructed Airway
Unconscious

Demo & Practice: Head-Tilt/Chin-Lift

CERT Basic Training
Unit 3: Disaster Medical Operations — Part 1
LOOK, LISTEN, FEEL - 5 to 10 seconds

- Look – towards the chest/abdomen
  - To see if rising with each breath

- Listen – for the inhale or exhale of breath
  - If hear wheezing, gasping, gurgling, etc., open airway and tag victim **Immediate**.

- Feel
  - Air on your face or cheek
  - Place hand on chest for movement of chest

Airway Management

- If breathing has been restored,
  - Clear airway must be maintained by keeping the head tilted back.
  - Place unconscious victim in recovery position (will be shown in later slides).
  - Tag victim **Immediate**.

- If no breathing after two attempts to open the airway:
  - **Triage = Black/Dead**

- Do not begin CPR nor rescue breathing
Types of Bleeding

- Arterial bleeding
  - Bleeding from artery spurts

- Venous bleeding
  - Bleeding from vein flows

- Capillary bleeding
  - Bleeding from capillaries oozes
Control Bleeding

- 3 main methods for controlling bleeding:
  - Direct pressure – BEST METHOD!!!
  - Elevation
  - Pressure points

If you cannot control the bleeding using one method, try another, or a combination of direct pressure and elevation.
Control Bleeding

Direct Local Pressure
over the actual bleeding site by putting a clean pad over the wound and pressing firmly. Maintain compression by wrapping the wound firmly with a pressure bandage.

Elevate the wound above the level of the heart.

Pressure Point - apply pressure on the nearest pressure point between the wound and the heart to slow the flow of blood to the wound. The pressure point to be used depends on the location of the wound.

LET’S PRACTICE in teams of 2
**Position for RESPONSIVE Victim**

Leave a breathing, **responsive** victim in the position found or a position of comfort unless you must move victim to safer location outside due to structural damage.

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**Recovery Position – UNRESPONSIVE Victim**

Protect a victim’s airway by placing them in the **RECOVERY POSITION** before moving on.
Recovery Position – UNRESPONSIVE Victim

Alternate recovery position with lower arm extended straight above head.

* Refer to C-8 Field Operating Guide (FOG) for more information on recovery position

LET’S PRACTICE in teams of 3
Take 5

Controlling Bleeding with a Tourniquet

When direct pressure is not possible or not effective at controlling heavy bleeding from a limb, apply a tourniquet as a LAST resort.

If none of the methods for controlling bleeding is successful and professionals are delayed in responding, a tourniquet may be necessary.
Tourniquets

A tourniquet is **rarely required** and should be used only as a *last resort*—a "life or limb" situation.

Tourniquets are considered appropriate treatment for crushing-type injuries and for partial amputations.

Using a tourniquet can pose serious risks to the affected limb, so it should not be used unless *not* using it will endanger the person’s life from excessive blood loss.

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**Tourniquets - Dangers**

- **Incorrect materials or application**
  - Use any long, flat, soft material (bandage, neck tie, belt, or stocking).
  - Use something strong for the windlass (lever).

- **Damage to the limb from a tourniquet**
  - Survival of a limb is almost never possible after a correctly applied tourniquet is left in place too long.
**Tourniquet**

**Only a physician should remove a tourniquet.**

If you apply a tourniquet:
- Twist only until bleeding stops
- Leave it in plain sight (*don't bandage over it*)
- Attach an adhesive label to victim's forehead stating time/date the tourniquet was applied.

**Shock**

- Result of ineffective circulation of blood
- Remaining in shock will lead to death of:
  - Cells
  - Tissues
  - Entire organs
Recognizing Shock

- Main signs of shock
  - Rapid and shallow breathing
  - Capillary refill of greater than 2 seconds
  - Failure to follow simple commands, such as “Squeeze my hand”
- Symptoms of shock are easily missed…
  pay careful attention to your patient!

Treatment of Shock

- Control major bleeding
- Maintain normal body temperature
- Loosen restrictive clothing
- No food or drink
- Reassure/keep calm
- Leg elevation
Video: Search & Rescue Triage

https://www.youtube.com/watch?v=MDLIa8JtcXc
https://www.youtube.com/watch?v=uaHgmpvfs

Triage Process

- Step 1: Stop, Look, Listen, and Think
- Step 2: Conduct voice triage
- Step 3: Start where you stand; follow systematic route
- Step 4: Identify yourself to each victim and ask permission to touch victim
- Step 5: Evaluate each victim, tag and document
- Step 6: Treat “I” victims immediately for 3 killers

Don’t forget to count victims to report totals by category!
TRIAGE RELAY

There are 3 things to check (non-walking victims):

● Respirations
  ▪ Adults (12 yrs +) under 30
  ▪ Children (0-11) 15-45

● Perfusion
  ▪ Less than 2 seconds

● Mental Status
  ▪ Can follow simple directions

Remember

30
2
Can do

Take 5
Responding to Mass Casualty Event

- Stay safe
- Develop/follow plan
- Document your actions for clear communication
- Work expeditiously
- Treat only 3 killers

CERT Sizeup

1. Gather Facts
2. Assess Damage
3. Consider Probabilities
4. Assess Your Situation
5. Establish Priorities
6. Make Decisions
7. Develop Plan of Action
8. Take Action
9. Evaluate Progress

REMEMBER: CERT SIZEUP IS A CONTINUAL PROCESS
TRIAGE – When and Where

- CERTs use triage to sort victims at mass casualty events
  - victims are evaluated, sorted by urgency of treatment needed, & tagged for immediate or delayed treatment
- Triage a victim up to three times:
  - Once during Search and Rescue operations
  - Again before transporting victim
  - Lastly on arrival at Med Ops at Command Post

Remember, during triage –
IF IT’S WET AND NOT YOURS DON’T TOUCH IT!

TRIAGE IN THE FIELD

The **FIRST** time we TRIAGE is in **Search And Rescue**.
- TRIAGE
- Treat for life-threatening conditions (‘3 killers’)
  - Airway Obstruction, Severe bleeding, Shock
- Document by assigning a category color and triage tag
- Notify Incident Command of findings so they know what victim transport is needed
TRIAGE IN THE FIELD

The **SECOND** time we TRIAGE is during **TRANSPORT**. In **TRANSPORT** we:

- Reassess RPM’s
  - In case victim’s situation has changed
- Conduct Head to Toe*
- Treat victim with bandaging or splinting to immobilize before moving, if needed

* Head to Toe Assessment will be covered at next class.

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TRIAGE AT THE COMMAND POST

The **NEXT** time we TRIAGE is after intake into **MED OPS**. In **MED OPS** we:

- Reassess RPM’s
  - in case victim’s situation changed
- Conduct Head to Toe
- Treat for what we find
  - according to the medical protocols* in your binder
- Provide care and treatment and document
- Determine who has greatest need for advanced care

* Medical protocols will be covered in next class.
DMO Acronyms

- ABS – Airway/Breathing, Bleeding, Shock
- CFW – Color, Feeling, Warmth
- DMO – Disaster Medical Operations
- HTTA – Head to Toe Assessment
- LLF – Look, Listen, Feel
- Med Ops – Medical Operations
- PPE – Personal Protective Equipment
- Ops – Operations
- RPM – Respiration, Perfusion, Mental status
- SAR – Search And Rescue
- STart = Simple Triage
- stART = And Rapid Treatment

Unit Summary

- You should now be able to:
  - Conduct triage under simulated disaster conditions
  - Identify 3 “killers”
  - Apply techniques for opening the airway, controlling bleeding, and treating for shock
Homework Assignment

1. Read Unit 4 to prepare for next session
2. Do homework handouts
3. Wear appropriate clothes for the next session
4. Bring a yoga mat for comfort during hands on exercises on floor

NEXT SESSION IS DISASTER FIRST AID