



BASIC LIFE SUPPORT

WITH LIFE SAVING TECHNIQUES

One day practical workshop on
procedures for treating casualties
during any emergency



WHEN-IT-STRIKES
CRISIS MANAGEMENT PVT. LTD.

From the experts who trained over 1,00,000 people covering 850 factories

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FIVE STEPS OF FIRST AID

1. PPP

- P** – PRESERVE – Precious Life
- P** – PREVENT – Things becoming worse
- P** – PROMOTE – Recovery

2. DTD

- D** – DIAGNOSIS – to know the problem – Look, Listen, Feel & Smell
- T** – TREATMENT – before taking to the doctor
- D** – DISPOSAL – to the hospital

3. FOUR LACKS

During diagnosis check for

- A.LACK OF BREATHING** (15 – 20 per minute)
- B.LACK OF HEART BEAT** (60 – 80 per minute)
- C.LACK OF BLOOD** (4 to 5 litres)
- D.LACK OF CONSCIOUSNESS** (shake & shout)

4. ABC

Keep brain supplied with oxygen by following ABC of Resuscitation

- A** – AIRWAY – Open the airway
- B** – BREATHING – Maintain Breathing
- C** – CIRCULATION – Maintain Circulation

5. RECOVERY POSITION / TRANSPORT

CPR / CPCR - CARDIO PULMONARY CEREBRAL RESUSCIATION

CPR or CPCR / Basic Life Support:

Cardio (HEART)
Pulmonary (LUNGS)
Cerebral (BRAIN)
Resusciation (TO BRING BACK)

CPR is an exercise wherein a rescuer takes over the functions of the heart/lungs artificially, so that the brain is adequately supplied by blood with Oxygen and Glucose. This enables the person to be brought back to life.

It implies here that CPR is done only on a person whose heart is not beating adequately or lungs are not working adequately or both. The concept of CPR is very simple to learn as it consists only of:

A – Airway
B – Breathing
C – Circulation

This sequence of A, B, C must always be followed.

♦ “A” is for Airway

What an airway consists of is demonstrated in the fig. In an unconscious person the airway tends to get blocked commonly because of tongue falling back or a foreign object. To prevent this the airway must be opened so that air entry and exit is possible through the airway. This can be done in two ways:

1. HEAD TILT NECK LIFT METHOD



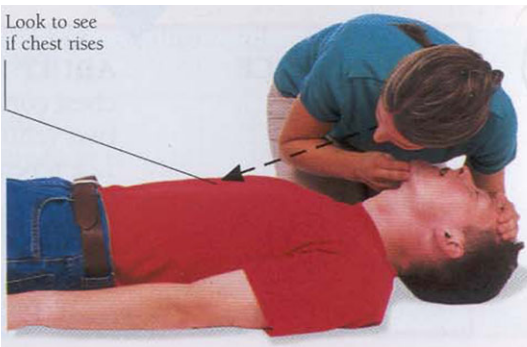
Consists of placing one hand on the jaw(at the chin) and another on the forehead and moving both the hands in opposite directions at the same time so that the chin is pulled up, to which the tongue is attached and hence it gets pulled up. However this cannot be tried in patients with neck injury, as it will

2. JAW THRUST METHOD:

Only in the case of neck injury, Jaw Thrust is done. For this, do the following:

- a. Use fingers to hook the jawbone just below the ear and pull with Jaw forward. Make sure there is no movements at the neck.
- b. Now that the airway is open the victim may breathe on his own failing which the rescuer has to breathe for the victim.

How to know if the victim is breathing?



1. By Looking – For chest movements

2. Listening – For breath sounds if possible

3. Feeling – For warm air coming out of nose or mouth

Look for 10 seconds. If no breathing is present, proceed to artificial breaths.

◆ “B” is for Breathing

There are two ways of giving artificial breaths.

1. Mouth to Mouth
2. Mouth to Nose

1. MOUTH TO MOUTH

It is the easier of the two because it allows for comfortable sealing of rescuer and victims mouth.



Step 1 : Keep the airway open



Step 2: Pinch the nostrils.



Step 3: Take a FULL breath(in adults only), and make a tight seal around victim's mouth. Blow for about 2 seconds.

Do not forget to watch for chest rise and stop if its too much. Take your head away from victim's mouth to prevent taking victim's breath into you. Repeat until you have given 2 adequate breaths.

2. MOUTH TO NOSE

- Step 1 : Keep the airway open.
- Step 2: Close the mouth of the victim.
- Step 3: Cover the victim's nose with your mouth.
- Step 4. Blow and watch for chest rise.
- Step 5: Take your head away.

This is preferred in cases when the victim's mouth contains

- Blood
- Vomitus
- Poison

What can go wrong?

Air can go into the stomach instead of lungs, which is dangerous because when stomach gets filled with air it can suddenly release the air back along with its contents usually food which can get into the lungs.

This can be prevented by SELICK'S MANOUVRE. Use 2 fingers to press downwards on the 'C' shaped cartilage on the neck.

◆ "C" is for Circulation

Look for neck pulse and check for 10 Sec. If not felt go ahead with external cardiac compressions.

OR

If the victim is unconscious and not breathing go ahead with external cardiac compression.

Step 1: Run finger along lower rib margin up to the junction of 2 margins. Feel the small bony point and place one finger on that. Now, place 2 fingers of other hand next to this finger towards the head.



Place the heel of your other hand a little above the first pointing towards the head. Slide it down to meet the 2 fingers. Now, place the first hand on top of the other hand.

Step 2: Get as close to the victim as possible. Move your shoulders directly above the victim's chest and press downwards upto 3 – 4 cms. You can use your body weight to rock forwards and backwards or use muscles to give the compression. If you use muscular action, you will tire faster.



15 compressions are given at a time followed by 2 breaths. Remember to maintain the speed at about 100 compressions / minute for an adult.

Continue CPR until you shift the patient to a hospital or until he revives. 15:2 ratio should be carried at least 6 – 7 times / minute. The ratio remains same for 2 person CPR.



◆ Recovery Position



Step 1: Open the airway and straighten the limbs of the victim. Tuck the arm nearest to you under the thigh.



Step 2: Bring the other arm across the victim's chest and place hand, palm facing outwards, against the cheek.



Step 3: Pull the far leg and roll the patient towards you, so that the patient is lying on his/her side.



Step 4: Bend victim's upper leg at the knee so that it makes a right angle to the body. Ensure victim's airway is open and the lower arm is free and lying on its back with the palm facing

CPR IN CHILDREN

In children the size of the child becomes an important aspect, which will accordingly modify CPR as follows.

INFANTS:

Shake and shout is not recommended. Instead painful stimuli like pinching and tapping the sole can be done. Airway is short and undue extension is not recommended. In breathing both mouth and nose of infant is covered by rescuer. Amount of air blown is less but rate of blowing is more as infants breathe faster. External Cardiac Compression is given at level of nipples with 2 fingertips and rate is faster again upto a depth of 2 cm. CPR is more successful in children and hence MUST be done always.

CPR IN PREGNANCY

The womb of a pregnant lady compresses the inferior vena-cava, a large vein which carries blood from the lower part of body back to heart and runs on the right side at the back of abdomen. This does not allow the heart to pump adequate oxygen rich blood.

It can be avoided by:

A cushion or pillow can be placed under the right hip.

A Volunteer can push the uterus to the left.

HEART ATTACK

1. MAKE CASUALTY COMFORTABLE



- Help the casualty into a half-sitting position.
- Support his shoulders, head and knees.
- If the casualty has tablets or a puffer aerosol for angina, let him administer it himself. Help him if necessary.
- Reassure casualty.

2. DIAL AMBULANCE



- Tell the controller that you suspect a heart attack.
- Call the casualty's doctor also, if he asks you to do so.

3. MONITOR BREATHING AND PULSE



- Encourage the casualty to rest and keep any bystanders at a distance.
- Monitor & record the casualty's breathing and pulse constantly.

4. GIVE CASUALTY ASPIRIN



- Give the casualty one tablet of aspirin, if available.
- Tell him to chew it slowly.
- And also ask the victim to take deep breath and cough.

EYE INJURY

1. SUPPORT CASUALTY'S HEAD



a. Lay casualty on her back, holding her head on your knees to keep it as still as possible.

b. Tell the casualty to keep her "GOOD" eye still, as movement of the uninjured eye may damage the injured eye further.

2. GIVE EYE DRESSING TO CASUALTY



Give the casualty a sterile dressing or clean pad, and ask her to hold it over the injured eye and to keep her uninjured eye closed.

3. TAKE OR SEND CASUALTY TO HOSPITAL



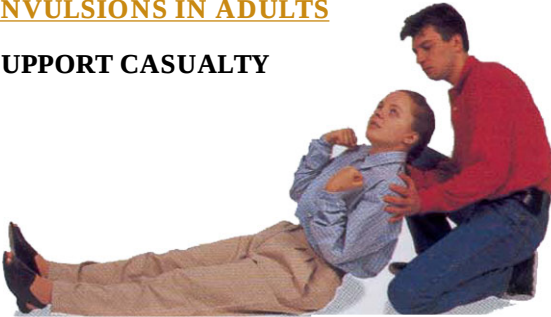
a. Call an ambulance if you cannot transport the casualty lying down.

b. Use water to pour over the effected eye, which should be at a lower to the other eye, in children hands can be tied to prevent them from rubbing eyes. Also moist swab or corner of tissue or clean handkerchief can be used.

CONVULSIONS

CONVULSIONS IN ADULTS

1. SUPPORT CASUALTY



- a. Try to ease her fall.
- b. Talk to her calmly and reassuringly

2. PROTECT CASUALTY

- a. Clear away any surrounding objects to prevent injury to the casualty.
- b. Ask bystanders to keep clear.
- c. A gauze piece or a handkerchief can be used to prevent victim from biting the tongue but care has to be taken not to allow it to be aspirated.



3. LOOSEN CASUALTY'S CLOTHING



- a. Undo tight clothing around casualty's neck.
- b. Protect the casualty's head, if possible, with soft material, until the convulsions cease

4. PLACE CASUALTY IN RECOVERY POSITION

- a. Place casualty in recovery position.
- b. Stay until the casualty is fully recovered.



CONVULSIONS IN CHILDREN

1. COOL THE CHILD



- a. Remove the clothing
- b. Ensure a good supply of cool air

2. PROTECT THE CHILD

- a. Clear away any nearby objects.
- b. Surround the child with soft padding.



3. SPONGE WITH TEPID WATER



Start at her head and work down.

4. PUT CHILD IN RECOVERY POSITION

Once the convulsions have ceased, put the child in the recovery position. Keep her head tilted well back.



POISONING

Swallowed poisons remain in stomach only for a short time where only small amounts are absorbed while most absorption takes place after poison passes into small intestine.

WHAT TO LOOK FOR:

- a. Abdominal pain and cramping.
- b. Nausea and vomiting
- c. Diarrhea
- d. Burns, odours and stains in mouth
- e. Drowsiness and unconsciousness
- f. Poison containers nearby

WHAT TO DO:

- a. Find out:
 - 1. What was swallowed?
 - 2. How much was swallowed?
 - 3. When was it swallowed?
- b. If caustic or corrosive material was swallowed, lips and tongue will be burnt and black immediately. Dilute with water or milk.
- c. Vomiting removes 30 – 50% of poison from stomach and must be induced within 30 min. of swallowing. This can be done using soap water. Do not induce vomiting during seizures, unconscious or drowsy, petroleum products, strychnine and rat poison
- d. Check ABC for unconscious victim.
- e. Keep victim on left side, this position delays stomach emptying into small intestine.
- f. If instructed and available give activated charcoal mixed with water.

SWALLOWED POISON

FOR AN UNCONSCIOUS CASUALTY

1. CHECK AIRWAY AND BREATHING



- a. Check there is no foreign matter in the mouth
- b. Check the airway and check breathing

2. PLACE CASUALTY IN RECOVERY POSITION

Ensure the airway remains open



3. DIAL AMBULANCE



- a. Give as much information as possible about the swallowed poison
- b. Monitor and record breathing, pulse, and level of response every ten minutes until help arrives.

BURNS - TREATMENT

1. COOL THE BURN



- a. Make the casualty comfortable
- b. Pour cold liquid on injury for ten minutes.
- c. While cooling the burn, watch for signs of difficulty in breathing.
- d. Be ready to resuscitate if needed

2. REMOVE ANY CONSTRICTIONS

- a. Carefully remove any clothing or jewelry from the affected area before the injury starts to swell.



3. COVER THE BURN



- a. Cover the burn and surrounding area with a sterile dressing, or a clean piece of material
- b. Reassure the casualty

4. TAKE OR SEND CASUALTY TO HOSPITAL

- a. Call an ambulance if you cannot transport the casualty to hospital
- b. Record details of the casualty's injuries and any possible hazards.



DIABETES

It is a disease caused due to lack of insulin in your body.

WHAT TO LOOK FOR:

1. Excessive thirst, hunger, urination
2. Weightloss

WHAT TO DO:

Go to the doctor immediately.

WATCH OUT FOR:

Blood sugar going low when there is

- Excessive sweating
- Shivering
- Dizziness

Immediately give a glass of water with sugar or something sweet to eat.

ASTHMA

Asthma may present with ACUTE EPISODES when air passages in lungs get narrower, making breathing difficult. These problems are caused by over sensitivity of lungs airways, which over react to some factors like exercise, air pollution, infections, emotions like anger, crying and smoke.

WHAT TO LOOK FOR:

- a. Coughing
- b. Blue skin
- c. Victim unable to speak full sentences
- d. Nostrils flaring with breath
- e. Wheezing or high pitched whistling sounds while breathing



WHAT TO DO:

- a. Victim should rest
- b. Take medications / inhaler prescribed by doctor
- c. Make victim sit upright and slightly bend forward
- d. Victim should double his or her usual fluid intake
- e. Seek medical assistance

SEVERE BLEEDING

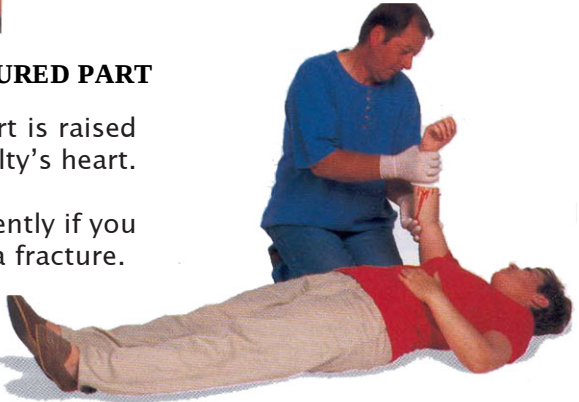
1. APPLY PRESSURE TO THE WOUND



- a. Remove or cut the casualty's clothing to expose wound.
- b. If a sterile dressing or pad is immediately available, cover the wound.
- c. Apply direct pressure over the wound with your fingers or palm of

2. RAISE AND SUPPORT INJURED PART

- a. Make sure the injured part is raised above the level of the casualty's heart.
- b. Lay the casualty down.
- c. Handle the injured part gently if you suspect the injury involves a fracture.



3. BANDAGE WOUND



- a. Apply a sterile dressing over any original pad, and bandage firmly in place.
- b. Bandage another pad on top if blood seeps through.
- c. Check the circulation beyond the bandage at intervals; loosen it if

4. DIAL AMBULANCE

Give details of the site of the injury and the extent of the bleeding when you telephone.

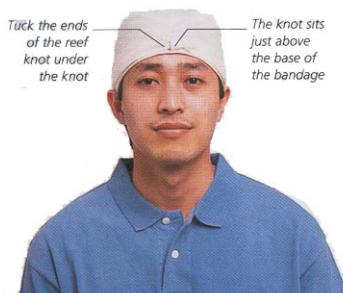
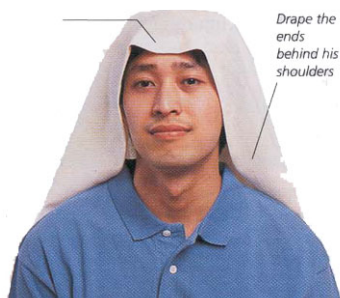
5. MONITOR CASUALTY AND TREAT FOR SHOCK

- a. Monitor and record breathing, pulse, and level of response.

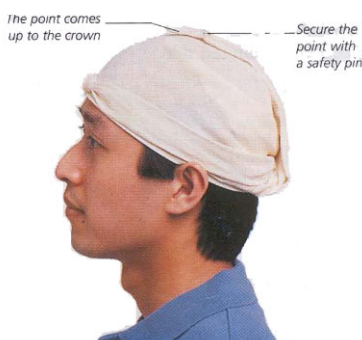
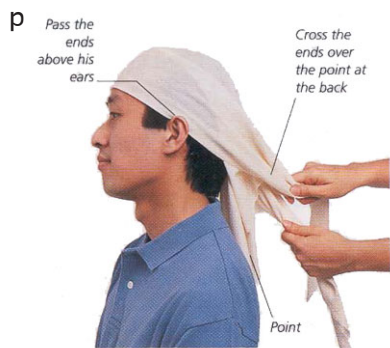
SCALP BANDAGE

TREATMENT

Wearing disposable gloves, if possible, replace any displaced skin flaps. Apply firm direct pressure over a sterile dressing or clean pad. Secure the



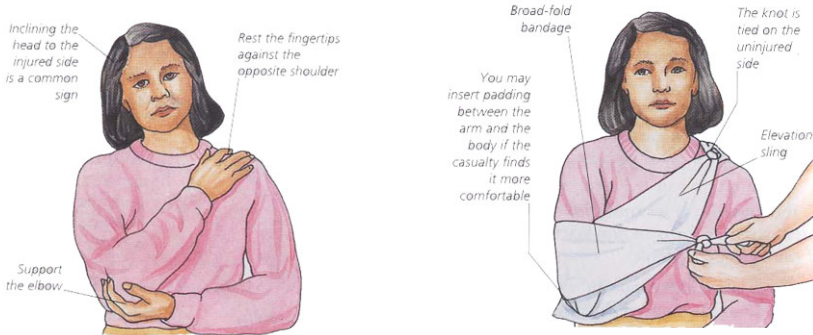
dressing using a triangular bandage. If bleeding persists, reapply pressure on the pad. Lay a conscious casualty down with his head and shoulders slightly raised; if he becomes unconscious, place him in the recovery



Take or send the casualty to hospital in the treatment position

TREATMENT FOR FRACTURED COLLAR BONE

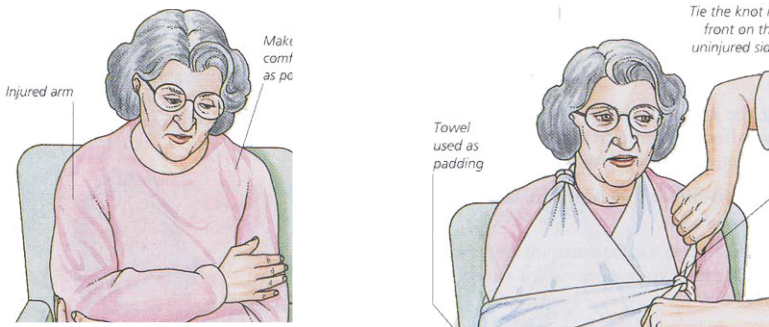
- Sit the casualty down.
- Place the arm on her injured side across her chest.
- Support the arm in an elevation sling



- Secure the arm to her chest with a broad-fold bandage over the sling.
- Take or send the casualty to hospital, transporting as a sitting case.

TREATMENT FOR FRACTURED UPPER ARM

- Sit the casualty down.
- Gently place the injured arm across her chest in the position that is most comfortable.
- Ask her to support her arm, if possible.
- Support the arm in an arm sling, and secure the limb to her chest



- Place soft padding between the arm and chest, and tie a broad-fold bandage around the chest over the sling.
- Take or send the casualty to hospital, transporting in the sitting position.

CARRYING POSITIONS

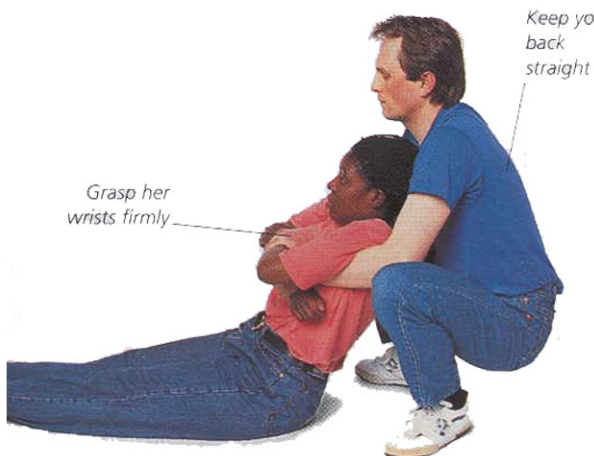
HUMAN CRUTCH

- Stand on the casualty's injured or weaker side.
- Pass his arm around your neck, and grasp his hand or wrist with your hand.
- Pass your other arm around the casualty's waist. Grasp his waistband, or clothing, to support him.
- Move off on the inside foot.
- Take small steps, and walk at the casualty's pace.
- A walking stick or staff may give him additional support.



DRAG METHOD

- Place the casualty's arms across her chest.



- Crouch behind her, grasp her armpits, and pull.
- Reassure the casualty throughout.
- If casualty is wearing a jacket, unbutton it and pull it up under the victim's head. Grasp the jacket under the shoulders and pull.

CRADLE METHOD

- Squat beside the casualty.
- Pass one of your arms around the casualty's trunk, above the waist.
- Pass your other arm under her thighs.
- Hug her body towards you, and lift.



THE TWO - HANDED SEAT



- Squat facing each other on either side of the casualty.
- Cross arms behind her back, and grasp her waistband.

- Pass your other hands under the casualty's knees, and grasp each other's wrist.
- Bring your linked arms up to the middle of the casualty's thighs.
- Move in close to the casualty. Keeping your backs straight, rise slowly, and move off together.



EMERGENCY PHONE NOS

1.	POLICE	100
	DG's Office:	2216242/2866242
	Commissioner's Office:	2256242
	Asst. commissioner of Police:	5566242 Ext: 212
	Bomb Disposal Squad:	2256242
2.	FIRE	101
		2251780/81/82/
		2251785/86/87
	LPG EMERGENCY SERVICES (Only Gas Leakage):	3349011
3.	AMBULANCE	102
	ROAD ACCIDENTS (CTC):	1062
	HEART BRIGADE:	1050 & 1051
	ST.JOHNS HOSPITAL:	2065000
		5532411 / 1050
	MANIPAL HOSPITAL:	5268901
	MALLYA HOSPITAL:	2277979 / 90
	BANGALORE HOSPITAL:	6562753
		6565494
	RAMKRISHNA NURSING HOME :	6633148

4. IMPORTANT HOSPITALS

NIMHANS	6995000 / 6568121
Mallya Hospital	2277979/91
Manipal Hospital	5268901 / 5266441
Wockhardt Hospital & Heart Institute	2261037 / 2281146
HOSMAT	5593796 / 5593797
St. Johns Medical College & Hospital	5530724 / 2065000 5532411, 1050

5. GENERAL HOPITALS(GOVT)

Jayanagar	6345711
Sri Sathya Sai Hospital	8411501
Sanjay Gandhi Accident & Research Institute Hospital	6564516

6. EYE BANKS

Lions Eye Bank	1919 / 2235005 2237628
Minto Eye Hospital	6707176
Narayana Netralaya	3325311
Manipal Hospital	5268901
Mallya Hospital	2277979 / 90
Bangalore Hospital	6562753 / 6565494

Prabha Eye Clinic

6344131 / 41

7. BLOOD BANKS

Karnataka Red Cross

2268435 / 2264205

Lions Blood Bank

2266807

Rotary – TTK Blood Bank

5293486 / 528790

Grace Blood Bank

33431233

Naveen Blood Bank

6341907

Sushruta Blood Bank

3447666/3340153

Unique Blood Bank

6700685/6709970

8. EMERGENCY OXYGEN SERVICES

Laxmi Service Trust

6645595

Lions

3348275

Rotary – Indiranagar

5297991 / 92

Vanitha Oxygen Service

3123107

Bangalore Medical Gases

5614111/5612156

9. HEART LINE (CARDIAC)

Rotary Life Saving Brigade	1050
Jayadeva Heart Brigade	1051
Manipal Hospital	5268901
Wockhardt Hospital & Heart Institute	2268888
Mallya Hospital	2277979 / 991
Narayana Hridayalaya	78 – 35000 / 35018

10. 24 HOUR PHARMACIES

Manipal Hospital	5268901 / 5266441 5266646
Mallya Hospital	2277979 / 990
HOSMAT	5593796
Khoday's Pharmacy	2281540

11. GENERAL

Snake Catchers	Mohammed Aneez 98440 – 37424 / 5487424
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FLOOD, WAR
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