



सत्यमेव जयते
Ministry of Health & Family Welfare
Government of India



Training Manual on Management of Common Emergencies, Burns and Trauma for Multipurpose Worker at Ayushman Bharat- Health and Wellness Centres





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CHAPTER 1

Introduction

In the last fifteen years primary health care has focused on health of mothers, children and adolescents, communicable diseases, non-communicable diseases and other chronic communicable diseases like tuberculosis, leprosy and HIV infection. The primary health care system primarily focused on delivery of care related to reproductive, maternal, new-born, child health, infectious diseases and nutrition and the newly added Non-Communicable Diseases.

With the launch of the Ayushman Bharat Health and Wellness program, a wider range of services are being rolled out with the aim of providing Comprehensive Primary Health Care to the communities. Emergency and trauma care services is one of the expanded package of services being provided through the Ayushman Bharat-Health and Wellness Centres (AB-HWCs).

As you already know, there are some health conditions which require immediate medical care and need to reach an appropriate health facility for treatment as soon as possible, usually within an hour. These conditions are life-threatening and therefore it is extremely important that they receive the right care at the right time. A common example is an accident leading to severe bleeding or a person suffering a heart attack. These emergency situations may arise at any time and can affect anyone. The broad goal of emergency care is to intervene as quickly as possible to avoid life-threatening morbidity and death in emergency and trauma cases. You might encounter such cases in the community during field visits or they may directly present to the SHC-HWC. This module will train you on your role in management and referral of emergency conditions.

What is an emergency?

An emergency is any condition that threatens the life or well-being of a person. A health emergency comprises a range of conditions which may pose a threat to life and require immediate medical care. Emergencies that are commonly encountered in the community may span from accidents and trauma to emergencies arising out of chronic diseases of the heart or lung. Trauma is one of the most common emergencies that occur in the community and a major reason for morbidity and mortality in India. The challenge with respect to most emergency and trauma cases is that they are non-discriminatory in the sense that they can happen to anyone irrespective of age, gender, economic status etc.

What is emergency care?

Emergency care refers to the care provided to the victim in the 'Golden Hour' (usually the hour following an accident) of an emergency condition before/while reaching the appropriate health facility, in order to prevent death or serious disabilities due to medical conditions or due to trauma. In the first few hours, early recognition and stabilization before transfer of a critically ill person significantly reduces morbidity and mortality.

Emergency Care, in principle is based on three Ps:

- ▶ Preserve Life
- ▶ Promote Healing
- ▶ Prevent Complications

ANM/MPW (F/M) can play a crucial role in identifying and seeking help for emergency and trauma cases in the community, which include carrying out initial assessment, identifying life-threatening conditions, initial management and arrangement of referral transport as needed and be competent in identifying emergency conditions that require priority management and referral. ANM/MPW (F/M) shall also support the ASHA in raising awareness regarding health emergencies and their prevention in the community. ANM shall assist the CHO in basic care management of emergency cases at the SHC-HWC.

This module will help you understand your role in emergency and trauma care. You will also find simple to use protocols in managing such cases as well.

CHAPTER 2

Role of ANM in Emergency and Trauma Care

Emergencies can present in various forms and have various causes. Most cases of emergency are avoidable by creating awareness regarding their prevention. Even when the emergency has occurred, prompt stabilization and safe referral significantly reduces death and disability. As an ANM/MPW (F/M), you would be assisting and supervising ASHA at the community level in undertaking preventive activities and CHO at the SHC-HWC in basic care management as and when required in relation to Emergency and Trauma care, ensuring scene safety in emergency situations and also in providing basic first aid for the victims whenever need be.

In the next few chapters, you will learn how to:

- A. Create awareness among the members of the community regarding prevention of common emergency conditions
- B. Recognize life threatening critical illness requiring immediate medical care in the community
- C. Promptly stabilize such cases at the scene of emergency
- D. Seek immediate help and ensure safe transport of such cases to the nearest appropriate Public Health Facility.
- E. Provide follow up care to victims of emergencies who are referred back from higher centres.

CHAPTER 3

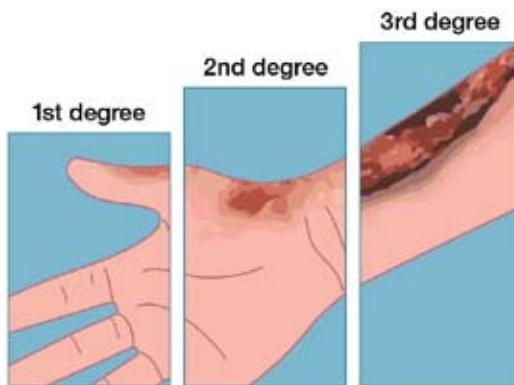
Management and Prevention of Common Emergency Conditions

Trauma and emergency situations, in many cases, are avoidable. The emergency situations which can largely be prevented are listed below.

1. Accidents and trauma: Accidents leading to trauma commonly occur in the home, at the workplace, on the roads and in playgrounds. Most of these accidents are avoidable if proper precautions are taken.



2. Burns including lightning injuries and electrocution: Burns occurring from flames, hot liquids and steam, electric shocks and certain chemicals like acids or alkali burns caused by lime, or some alkali based toilet cleaners etc. are all preventable. Alkali burns are more serious than acid burns as the damage is ongoing.



3. Bites: The three common cases of bites which are preventable are animal bites, snake bites and scorpion bites. Educate about dos.



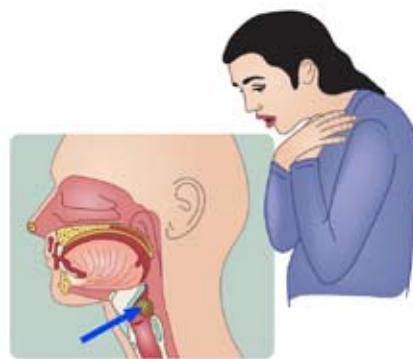
4. Poisoning: Causes of unintentional ingestion of poisonous substances commonly available domestically can be prevented.



5. Near-Drowning: Drowning is most commonly seen among small children and infants in the community.



6. Choking: Choking can occur in adults but are more commonly seen in children who accidentally ingest objects like coins/toys, seeds, button, batteries etc.



7. Exposure Illnesses:

- ▶ Heat Exhaustion and Heat Stroke: These occur on prolonged exposure to heat and can sometimes be fatal.
- ▶ Hypothermia and Frostbites: These occur on prolonged exposure to cold leading to a decrease in body temperature which if left untreated, could be fatal.



8. Emergencies like heart attacks, stroke and diabetic coma caused by uncontrolled hypertension and diabetes.
9. Emergencies arising out of allergic reactions are preventable if the allergen is known. Proper history taking and identification of the allergen can help prevent the emergency situation in subsequent times.



All of these are emergency conditions that can be prevented by being aware and taking specific precautions against them. You will play an important role in raising awareness among community members about these emergencies and educating them regarding their prevention

In any case of emergency, the first step is to **call for help**.

- ▶ Immediately call the ambulance (102) or any other state specific ambulance services in place
- ▶ Inform the CHO and MO about the situation

Stabilization of sick or injured persons is required to prevent their condition from deteriorating further too quickly before they can reach a medical facility for treatment. As you have learnt in the previous section, you must inform the CHO and MO and call for an ambulance as soon as you suspect an emergency. After calling for help, the person needs to be stabilized till the time he/she is being transferred to the health facility. In this section you will learn how about general and specific measures of stabilization.

Caution: It is important to note that stabilization of any case of emergency requires close contact. Due precautions must be taken, owing to the COVID-19 pandemic, while carrying out all stabilization procedures.

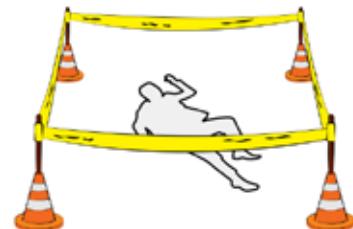
Stabilization of any case of emergency involves two approaches:

1. Removing any imminent danger to the person
2. Specific measures for stabilization

1. Removing imminent danger

Scene safety

This is done to ensure safety of self, patient as well as the bystanders and removing the patient from the emergency situation wherever required, eg., dangerous traffic, sharp objects, slope of ground, electric live circuit, etc.



Safe Transport

Once scene safety has been secured, with great care, lift the injured victim without bending him/her anywhere. Take special care that the head and neck do not bend. The victim should be transported in a flat condition as far as possible. However, if there is any suspected injury to the spine, the victim should be immobilized in that position only, and no attempt should be made to lay him/her flat.

If you have help, have another person put the stretcher in place



- ▶ In cases of trauma, the approach is (H)ABCDE instead of ABCDE. Because trauma cases need management of life-threatening hemorrhage (bleeding) as the first step before ABCDE.

This approach should be performed within 1-2 minutes and repeated whenever the victim's condition worsens.

H: Haemorrhage (bleeding) control (only during trauma cases)
A: Airway
B: Breathing
C: Circulation
D: Disability
E: Exposure

2. Specific measures for stabilization

Haemorrhage/bleeding control

Haemorrhage or bleeding control needs to be addressed first only in the cases of trauma where there is obvious visible bleeding from any part of the victim's body. Profuse or uncontrolled bleeding

should be given maximum priority. Remember that you can only manage the bleeding when the bleeding is from the extremities like the hands and the legs and not internal. Internal bleeding can only be managed by a doctor, however you can attempt to control bleeding. The procedure for hemorrhage control will be discussed in detail in the following sections.

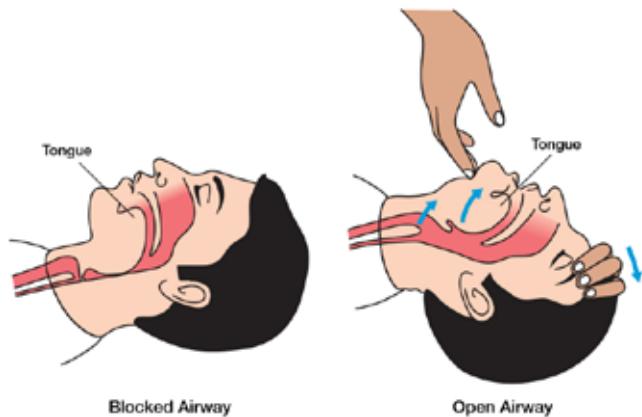
Note: Whenever and wherever the concerned victim is a **pregnant woman**, there could be vaginal bleeding which is heavy (Heavy bleeding is defined as a clean pad or cloth becoming soaked within less than 5 minutes), but is not yet shocked (they are able to stand or sit up and speak normally). Any problem that might be hindering the circulation of the woman, unless rapidly treated, could lead to shock or heart failure.

Note: In all non-trauma cases, you shall make use of the **ABCDE approach**.

Airway

Check whether the passage from nose to throat and lung is clear of obstruction. Obstruction to the airway can be caused by food, swollen tongue falling back to the throat, thick mucus or blood in the airway, or any foreign body stuck in the airway. If the airway is blocked then tilt back the head of the person and lift the chin. If any *visible* obstruction is seen then try to remove it from the mouth with a clean cloth wrapped around your finger.

(Caution: If there is neck or head injury then only chin lift should be done without turning the head of the person.)



Breathing

Check whether the person is breathing properly. A person can only survive a few minutes without oxygen. Normal breathing rate for adults is 17-20 breaths per minute, for children between 1-5 years is 40 breaths per minute and for infants is 50 breaths per minute. In case of irregular breathing rates, arrange for oxygen for the patient. If the breathing has stopped, mouth to mouth breathing should be given. (**Caution:** In times of COVID-19 pandemic, care must be taken since mouth to mouth breathing might increase risk of spread of infection.)

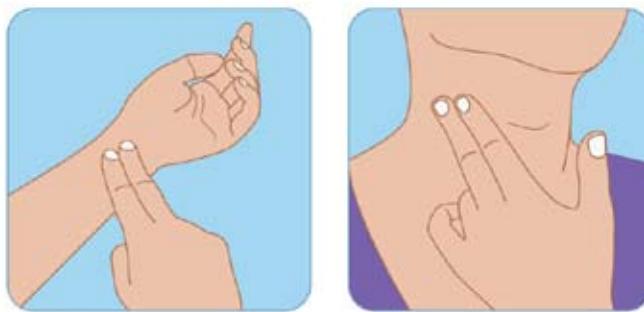
Circulation

Check for pulse (in the wrist- radial pulse, or neck- carotid pulse) to assess circulation i.e., pumping of blood by the heart. Normal pulse in adults ranges between 60-90 per minute.

In unconscious patients, you should always check for carotid pulse.

How to feel for the carotid pulse?

- ▶ The pulse from the carotids may be felt on either side of the front of the neck just below the angle of the jaw.
- ▶ To check for pulse, place your index and middle fingers on your neck to the side of your windpipe.
- ▶ Count the pulses you feel for 15 seconds.
- ▶ Multiply this number by 4 to obtain the heart rate.



Disability

Check the person's level of consciousness using the **AVPU method**.

A: Alert: The person is aware and is responding to the surrounding on their own. The person will also be able to follow your instructions, open eyes spontaneously, and track objects.

V: Verbally Responsive: The person's eyes do not open spontaneously. The victim's eyes will open only in response to voice/calling out his/her name.

P: Responsive to Pain: The person's eyes do not open on their own and will only respond if a painful stimulus is given, eg. pressure to the chest. The victim may move, moan, or cry out directly in response to the painful stimuli.

U: Unresponsive/unconscious: The victim does not respond spontaneously and does not respond to verbal or painful stimuli.

Note: whenever and wherever the concerned victim is a pregnant woman, sometimes you may find on AVPU assessment that the woman is Unresponsive. (*Do not panic in such case and remember that it is not rare to find that women experiencing obstetric emergency could be unresponsive or unconscious from the intensity of pain*)

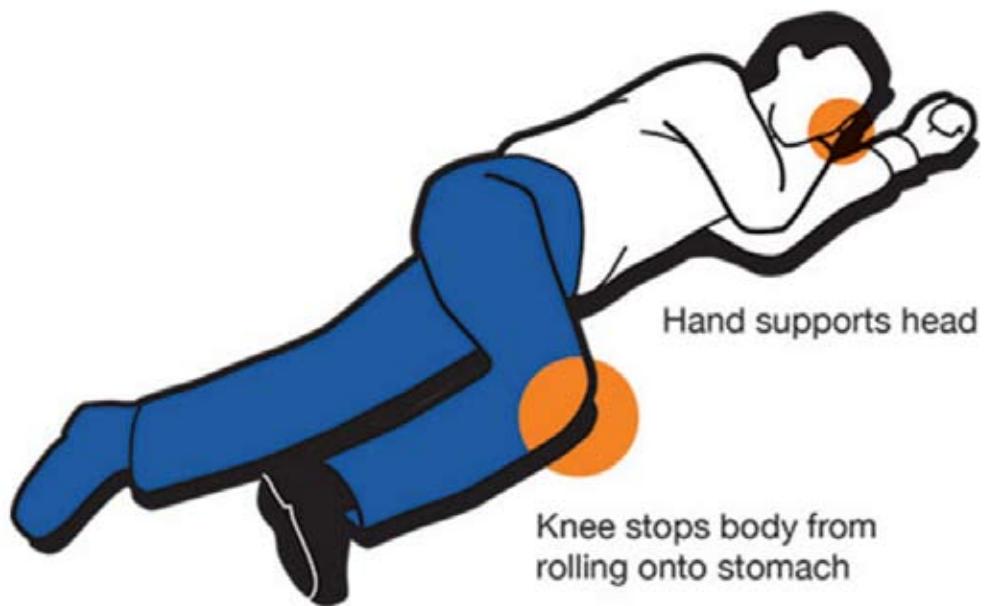
Exposure

Minimize heat loss by covering the person's body.

If the victim is unresponsive but breathing, turn them into a recovery position and wait for help to arrive.

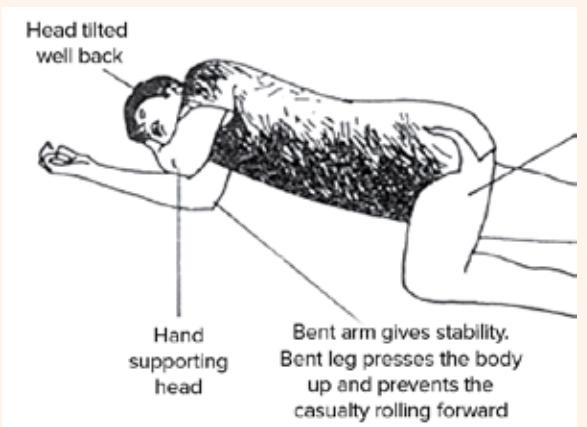
Recovery position

The recovery position is when a person is lying down on their side.



Below is a step-by-step depiction of placing the victim in the recovery position.

Step 1	<p>Kneel beside the person, open his/her airway by tilting the head and lifting the chin.</p> <p>Caution: Do not attempt to head-tilt, chin-lift if the person presents with any suspected spinal injury</p> <p>Straighten his/her legs.</p> <p>Place the arm nearer to you at right angles to his/her body, elbow bent and move the hand palm to the upper side.</p>	<p>Legs straight</p> <p>Elbow bent</p> <p>Open the airway first using Head and Chin tilt.</p>
Step 2	<p>Bring the arm further from you across the chest and hold the hand, palm outwards, against the person's cheek.</p>	<p>Place the back of the hand against her/his cheek and hold it there.</p>
Step 3	<p>With your other hand, grasp the thigh further from you and pull the knee up, keeping the foot flat on ground.</p>	<p>Grasping the leg above the knee, roll the casualty towards you</p> <p>Use your knee to stop the casualty rolling too far.</p> <p>Holding the casualty's head against her/his cheek as they turn supports and protects the head and face.</p>

Step 4	Keeping his/her hand pressed against his/her cheek, pull at the thigh to roll the person towards and on to her side.	 <p>Head tilted well back Hand supporting head Bent arm gives stability. Bent leg presses the body up and prevents the casualty rolling forward</p>
Step 5	Tilt the head back to make sure the airway remains open. Adjust the hand under the cheek if necessary, so that the head stays in this tilted position.	
Step 6	Adjust the upper leg, if necessary, so that both the hip and knee are bent at the right angles.	

Infant Recovery Position: Cradle the infant in your arms, with the head tilted downwards to prevent the child from choking on its tongue or by inhaling vomit. Maintain this position until you get medical help.

The recovery position will help in keeping their airway clear and they will be able to breathe properly. If the victim happens to vomit, this position will ensure that he/she doesn't choke. This position prevents the tongue from falling back and blocking the throat. Since the head is slightly lower than the rest of the body, it allows liquids to drain from the mouth, reducing the risk of choking on fluids or vomit. This position should also be used in fits or seizure after the shaking movements have stopped.

(Caution: If you suspect that the person has suffered injury to the neck or spine, do not attempt the recovery position.)

While the ABCDE and scene safety approach is almost universal and should be carried out for every emergency situation, some other approaches could be used for particular emergency situations which are the specific measures which you shall learn in the following sections.

3.1. Trauma and Accidents

3.1.1. Recognising life threatening situations

The most common warning signs of a case that is life threatening or requires immediate care, involve:

- ▶ Bleeding that will not stop
- ▶ Breathing problems (difficulty breathing, shortness of breath)
- ▶ Change in mental status (such as unusual behavior, confusion, difficulty waking up/gaining consciousness)
- ▶ Chest pain
- ▶ Choking
- ▶ Coughing up or vomiting blood
- ▶ Fainting or loss of consciousness

- ▶ Trauma or severe injury to any part of the body especially head or spine injury, injury to abdomen or other vital organs like eyes, any major or severe wound
- ▶ Sudden, severe pain anywhere in the body
- ▶ Sudden dizziness, weakness, or change in vision
- ▶ Sudden weakness in any limb or of face
- ▶ Severe abdominal pain or pressure
- ▶ Seizures/fits

If the situation is found to be life-threatening, the only focus should be on keeping the patient alive till help arrives. In all cases of emergency your role is to ensure prompt stabilization and safe transport to the nearest public health facility. The stabilization process should be continued till the arrival of ambulance.

3.1.2. Management protocol

Specific Measures

Trauma or accident is the most common type of emergency. Though it can fatal, major disability or even death can be prevented by providing stabilization using two modes:

- ▶ Immobilization
- ▶ Control of bleeding

You learnt in the previous section that you should always look for signs of bleeding and swelling. You might be able to see swelling and redness around a bone which could indicate fracture. In this sub section, we shall learn about how to suspect a fracture, immobilize an injured body part of the victim and control excessive bleeding.

Immobilization is required whenever a fracture of bone is suspected. A patient with fracture may present with following possible signs and symptoms:

- ▶ The break may have been felt or heard
- ▶ Pain at or near the area of the injury
- ▶ Pain when gentle pressure is applied over the area
- ▶ Difficult or impossible normal movement of the limb
- ▶ Deformity, abnormal twist or shortening of limb
- ▶ Swelling over and around the area
- ▶ A coarse grating sound if one end of the bone moves against the other

In case of fracture, use the **RICER approach**.

- 1. R:** Rest the affected body part, ie., immobilization. Use splints/strips of bark/sleeve of cardboard to immobilize the bone. The pictures below show how fractures in different body parts can be immobilized.
- 2. I:** Ice can be applied over the suspected fractured area (only if there is no external bleeding).
- 3. C:** Compression of the area using a bandage but make sure it is not too tight.

4. **E:** Elevate the affected body part to prevent further swelling.
5. **R:** Refer the person to a Medical Officer immediately.

Caution

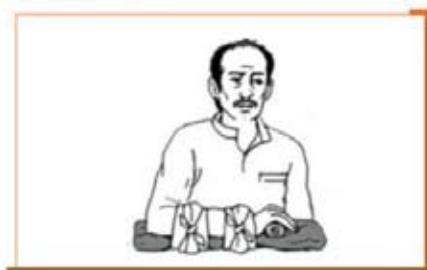
- ▶ Never rub or massage a broken body part or the skin above a bone that you suspect to be broken.
- ▶ Wherever a severe injury is seen especially to the neck, immobilize using heavy towels or rolled sheets on both sides of the neck or hold the head and neck to prevent movement.
- ▶ If the person has suffered a two-wheeler/motorcycle accident, and is wearing a helmet, then do not attempt to remove the helmet. You can open the wind shield of the helmet without disturbing the placement. This would help prevent movement of the neck and head and will protect against any injury.

Fractures:

Upper arm



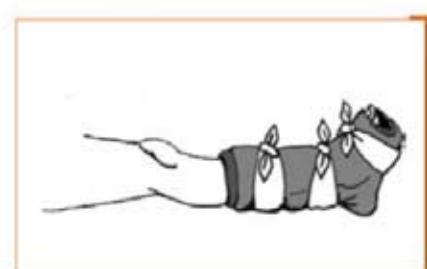
Lower arm



Upper leg



Lower leg



Step 1



Step 2



Step 3

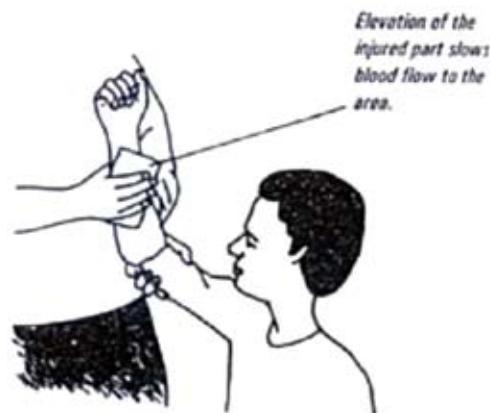


Step 4



Bleeding could range from minor, major to even life threatening and hence it is important to try everything to stop the bleeding. If the bleeding is at the site of the neck, it is possible that it could cause blocking in the airway.

- ▶ Wash your hands before you attempt to stop bleeding in a person.
- ▶ Apply pressure on the site of bleeding using a clean cloth. Use the material that you already have and not waste time in searching for proper dressing material. Make sure that the cloth you use is clean.
- ▶ Press on the wound for at least 10 minutes to give the blood time to clot.
- ▶ Once you are holding pressure on the bleeding site, do not remove the pressure to check if the bleeding has stopped.
- ▶ It may be useful to make the person lie down on their back and raising the injured part above the level of the victim's chest. This will help in reducing the flow of blood.
- ▶ If the bleeding does not stop with pressure then bandage the injured part with a cloth firmly (but not very tightly as it might restrict the circulation and make the arm/leg turn blue). If bleeding strikes through the dressing, bandage another firmly over the top.
- ▶ If bleeding or injury is severe, raise the feet and lower the head to prevent shock.
- ▶ Do not use a tourniquet. It can make the bleeding worse, and may result in tissue damage and even gangrene.
- ▶ Remember to also protect yourself from infection. If you have any open wound on your skin, first cover the wound before helping the victim.



Control of excessive bleeding

1. Raise the injured part
2. Apply pressure on the wound directly by tying a clean cloth/bandage
3. Hold the pressure
4. Tie the bleeding site with a bandage firmly but not very tightly.
5. Hold this pressure until help arrives.

3.1.3. Safe Referral/Transport

As you have been taught before, you should call for help as soon as you identify a life-threatening situation. You need to know the public health facilities nearest to you which provide care for trauma and accident related emergencies. Mapping of all the nearest referral centres should be done and information should be kept handy regarding facilities:

- i. Which can provide primary care for emergencies like superficial bleeding wounds etc.
- ii. Which provide secondary care (where a Medical Officer is present) for emergencies like minor head injury, unconsciousness, seizures etc.
- iii. Where specialist doctors are available who can manage emergencies like severe head injury etc.

1. You need to keep the phone numbers for all available ambulance services handy with you at all times.
2. You need to keep the contact numbers of the CHO and MO handy with you at all times.
3. You need to stay informed about the facility where the patient has been referred and follow up once he/she is discharged.

Table in Annexure II may be used to understand what cases can be treated at which level so that time is not wasted in referring to facility that is not equipped to address the case.

3.1.4. Follow-up Care

Most cases of emergency and trauma require care even after discharge from the health facility, for complete recovery. The ASHA will be involved in identifying those persons who have received treatment for emergency or trauma but require follow-up care. The follow up care could either be for a short duration (till complete recovery) or for a longer period of time. Your role will be to provide supportive supervision to ASHA in follow-up care and providing hand-holding support to ASHA whenever your intervention is required.

In cases where the patient is **a victim of trauma/accident**, you could provide the following care:

Educate the person on wound care: Major wounds usually take a few weeks to heal completely. You can ensure that he/she visits the health facility regularly for change in dressing, takes prescribed medicines regularly and follows good hygiene practices.

Check for any complication in healing: In case the wound gets infected or healing is delayed, the person will develop redness, swelling, fever, foul smell, pain around the wound, pus/discharge etc. If any of these is present, inform the person and refer him/her to the nearest SHC-HWC.

Assistive devices: If the person has been provided with any assistive devices like wheelchair, walking crutches, immobilization devices etc., then on your follow-up visits, check for the status and maintenance of these devices and also note the difficulties the patient is facing if any. In case the person requires any assistive device after discharge for any disability that develops later, inform the CHO and facilitate arrangement of such devices from the PHC-HWC.

If any person has been prescribed physiotherapy, facilitate by mobilizing them to the SHC-HWC for the same on designated days.

In case a person develops permanent disability, ensure that he/she receives appropriate palliative care. Link him/her with the palliative care services provided through the AB-HWCs.

Provide psycho-social support to help the person overcome the crisis.

3.1.5. Prevention and Awareness Generation at the Community Level

Some of the key messages you need to make use of, to educate the community regarding prevention of emergency situations like accidents etc. leading to trauma are:

1. Make sure there are no accident-prone areas in the house (eg. do not let water accumulate on the floor, clean up spills immediately, keep sharp objects like knives and scissors out of reach of children, do not store heavy objects at the edge of shelves, remove any sharp protruding edge of furniture,
2. Make sure all areas of the house are well lit.

3. Get eyesight checked regularly, especially for older people in the house.
4. Take proper precautions if any occupational hazards are present at workplace (eg. caution while working with heavy machinery, use of safety guards to prevent injury from thresher and cutter while farming, handling of chemicals, live wires etc.)
5. Always stay alert and look in all directions while walking on/crossing roads and streets.
6. Always wear seat belt or helmet when traveling in vehicles.
7. Avoid the use of mobile phones while crossing/walking on the roads, driving or riding.
8. When driving vehicles, always follow safety and traffic rules.
9. Teach children to be safe while playing outdoors.

3.2. Burns

3.2.1. Recognizing life threatening situation

3.2.2. Management Protocol

Specific Measures

In cases of burns, use the **STOP approach**:

1. **S:** Strip burnt clothes/jewelry.
2. **T:** Turn on COOL tap and let the burn wash under cool water for at least 10 minutes.
3. **O:** Organize safe referral.
4. **P:** Protect burn with a clean cloth.

Caution

- ▶ Do not apply ice directly over the burn.
- ▶ Do not apply any lotions/creams over the burn.
- ▶ Do not attempt to remove cloth stuck to the skin that is burnt.
- ▶ Do not peel away burnt skin or blisters.

3.2.3. Safe Referral/Transport

As you have been taught before, you should call for help as soon as you identify a life-threatening situation. You need to know the public health facilities nearest to you which provide care for trauma and accident related emergencies. Mapping of all the nearest referral centres should be done and information should be kept handy regarding facilities –

- i. Which can provide primary care for emergencies like superficial burns etc.
- ii. Which provide secondary care (where a Medical Officer is present) for burn emergencies
- iii. Where specialist doctors are available who can manage emergencies like severe burns etc.

1. You need to keep the phone numbers for all available ambulance services handy with you at all times.
2. You need to keep the contact numbers of the CHO and MO handy with you at all times.
3. You need to stay informed about the facility where the patient has been referred and follow up once he/she is discharged.

Table in Annexure II may be used to understand what cases can be treated at which level so that time is not wasted in referring to facility that is not equipped to address the case.

Remember:

While transporting the victim of lightning injuries, you should follow the protocol mentioned above while maintaining immobilization by supporting the head and neck of the victim. A pregnant victim of lightning needs to be referred to a facility where an obstetric surgeon is available irrespective of the severity of the injury.

3.2.4. Follow-up Care

Most cases of extensive burns require care even after discharge from the health facility, for complete recovery. The ASHA will be involved in identifying those persons who have received treatment for burns but require follow-up care either for a short duration until complete recovery or for a longer period of time which is called palliative care. Your role will be to provide supportive supervision to ASHA in follow-up care and providing hand-holding support to ASHA whenever your intervention is required.

In cases where the patient is **a victim of burns**, you could provide the following care:

Educate the person on wound care: Major burn wounds usually take a few weeks to heal completely. You can ensure that he/she visits the health facility regularly for change in dressing, takes prescribed medicines regularly and follows good hygiene practices.

Check for any complication in healing: In case the wound gets infected or healing is delayed, the person will develop redness, swelling, fever, foul smell, pain around the wound, pus/discharge etc. If any of these is present, inform the person and refer him/her to the nearest SHC-HWC.

If any person has been prescribed physiotherapy, facilitate by mobilizing them to the SHC-HWC for the same on designated days.

In case a person develops permanent disability, ensure that he/she receives appropriate palliative care. Link him/her with the palliative care services provided through the AB-HWCs.

Provide psycho-social support to help the person overcome the crisis.

3.2.5. Prevention and Awareness Generation at the Community Level

Some of the key messages you need to make use of, to educate the community regarding prevention of emergency situations like burns are:

1. Never leave children unattended in the kitchen.
2. Always switch off stove/oven when not in use.
3. Do not handle/be careful while handling very hot liquids.

4. If any chemical like cleaning acid, lime or alkaline based toilet cleaners etc is there in the house, keep it away safely.
5. Burns can also be caused by steam, eg. Steam from pressure cookers, etc.

Electrocution:

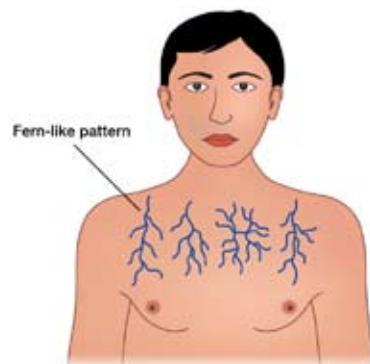
1. Stay alert while using any electrical appliance inside or outside the house
2. Use of rubber slippers while dealing with live electric wires, sockets etc.
3. Do not leave any electrical appliance near water eg. Iron box, heater, etc.
4. Keep small children away from electric appliances, plug points, etc.
5. Do not go near electric grids or live wires.

Lightening Injuries

As you may have seen, lightening is the electric discharge that happens during thunderstorms. In some cases, this can be very dangerous when the lightening comes in contact with the body. In most situations, lightning often travels over the skin rather than through the body and hence, most victims of lightening injuries survive. The most common immediate effect of lightening injuries is on the respiratory system of the body which can cause cardiac arrest leading to death.

How to recognise life threatening situations pertaining to lightening injuries?

You should treat every case of lightening injury as immediate and refer to the nearest appropriate facility as soon as possible. However, there are some signs that you can look for in the victim to understand the severity and provide stabilization.



- ▶ Loss of consciousness ‘
- ▶ Loss of memory
- ▶ Confusion
- ▶ A feathering or fern shaped burn on the skin (This is not very common, but whenever present, is a classical sign of lightening injury).

All of the above signs you will be able to see in the victim, when you check for AVPU and follow ABCDE protocol.

Preventing lightening injuries:

Even though lightening injuries are dangerous, it is largely possible to prevent getting struck by lightning. The following key messages can be used for awareness generation in the community to avoid injuries related to lightening:

1. Prevention of **indoor** lightening casualties:

- ▶ Even though houses provide safe shelter during a lightning storm, you may still be at risk. It is a myth that lightening injuries cannot be caused indoors.

- ▶ **Avoid water** Do NOT bathe, shower, wash dishes, or have any other contact with water during a thunderstorm because lightning can travel through a housing plumbing vent.
- ▶ **Avoid electronic equipment** Do NOT use your computers, laptops, game systems, washers, dryers, stoves, or anything connected to an electrical outlet. Lightning can travel through electrical systems, radio and television reception systems, and any metal wires or bars in concrete walls or flooring.
- ▶ **Avoid windows, doors, porches, and concrete** Do NOT lie on concrete floors during a thunderstorm. Also, avoid leaning on concrete walls. Lightning can travel through any metal wires or bars in concrete walls or flooring.

2. Prevention of **outdoor** lightning casualties:

- ▶ **Be aware** If aware about thunderstorms predictions, postpone outdoor activities, or make sure adequate safe shelter is readily available.
- ▶ **Go indoors** Remember the phrase, “**When thunder roars, go indoors.**” Find a safe, enclosed shelter when you hear thunder. Safe shelters include homes, offices, shopping centres, and hard-top vehicles with the windows rolled up.
- ▶ **Seek shelter immediately even if caught out in the open** If you are caught in an open area, act quickly to find adequate shelter. The most important action is to remove yourself from danger.

Remember: Crouching or getting low to the ground can reduce your chances of being struck, but does not remove you from danger.

If one is caught outside with no safe shelter nearby, the following actions may reduce their risk:

- ▶ Immediately get off elevated areas such as hills, mountain ridges, or peaks.
- ▶ Never lie flat on the ground. Crouch down in a ball-like position with your head tucked and hands over the ears so that they are down low with minimal contact with the ground.
- ▶ Never shelter under an isolated tree.
- ▶ Never use a cliff or rocky overhang for shelter.
- ▶ Immediately get out of and away from ponds, lakes, and other bodies of water.
- ▶ Stay away from objects that conduct electricity (barbed wire fences, power lines, windmills, etc.).

Separate If one is in a group during a thunderstorm, separate from each other. This will reduce the number of injuries if lightning strikes the ground.

DO NOT do the following:

- ▶ **Do not stay in open vehicles, structures, and spaces** During a thunderstorm, avoid open vehicles such as motorcycles. Be sure to avoid open structures such as playgrounds.
- ▶ **Do not stay near tall structures** Do NOT lie on concrete floors during a thunderstorm. Also, avoid leaning on concrete walls. Lightning can travel through any metal wires or bars in concrete walls or flooring.

3.3. Bites (Animal bite/snake bite/scorpion sting/other insect bites)

3.3.1. Recognizing life threatening situations

Irrespective of the nature of the bite, i.e. even if you feel that the victim's condition does not appear serious, you should refer the case to the nearest health facility since symptoms could have delayed occurrence and shall need observation to understand the fatality of the situation.

However, sometimes an animal bite or sting could present with obvious signs as follows which require immediate care:

- ▶ Symptoms that are not just at the site of the bite or sting
- ▶ If the bite appears infected (redness with or without pus, warmth, fever, or a red streak that spreads toward the body)
- ▶ An open or ulcerated bite wound could be suggestive of a scorpion bite
- ▶ Wheezing
- ▶ Shortness of breath
- ▶ Chest pain or tightness
- ▶ Sensation of the throat closing or difficulty speaking or swallowing
- ▶ Faintness or weakness

3.3.2. Management Protocol

Specific Measures

Animal bites and scratches are commonly seen in both adults and children. Animal bites (dog, cat, monkey, and domestic animals like cow or horse, wild animals) may cause a deadly disease called rabies, if bitten by an infected animal. Rabies is caused by a virus which is present in the saliva of infected animals which can spread through bites or licks on broken skin. In case of animal bites, the following steps must be followed:

1. Wash the wound immediately with soap and running water for at least 10 minutes.
2. Reassure the person.
3. Control any bleeding from the site of bite. Apply pressure but not too tightly since it can speed up the spread of virus.
4. Refer the person immediately to a health facility for proper management and vaccination.

Caution

- ▶ Do not apply turmeric powder, chili powder, limestone, paste of leaves or plants on the bite wound.
- ▶ Do not place coins, bark of trees or any other object on the bite wound.
- ▶ Do not cut the wound open.
- ▶ You should ask the victim or his relatives/family to observe the dog for 10 days to see if there are any behavioral changes in the dog.

Snake bite:

In case of snake bite, use the **RIGHT approach**.

R: Reassure the person (70% of snakebites: from non- poisonous snakes only 50% poisonous snakes inject poison).

I: Immobilize the affected body part of the person.

GH: Get to the Hospital immediately.

T: Tell the doctor at the referred facility about presence of any symptoms (Pain, weakness, bleeding, etc.).

Caution

- ▶ Do not tie a tourniquet in cases of snake bite.
- ▶ Snake venom does not spread through blood.
- ▶ Do not try to suck out poison from snake bite, or cut the wound open.
- ▶ Do not make the patient move too much.
- ▶ In most cases, if the snake has been killed, it should be taken to the hospital along with the patient to make sure the treatment is right **BUT DO NOT** waste time in searching for the snake. It could lead to more casualty if the snake is not dead and only injured.

Scorpion sting/other insect bites:

In case of scorpion sting or other suspected poisonous insect bite, wash the wound immediately with soap and water and refer the person to the nearest health facility.

3.3.3. Safe Referral/Transport

As you have been taught before, you should call for help as soon as you identify a life-threatening situation. You need to know the public health facilities nearest to you which provide care for emergencies related to bites. Mapping of all the nearest referral centres should be done and information should be kept handy regarding facilities –

- i. Which can provide primary care for emergencies like superficial bites etc.
- ii. Which provide secondary care for emergencies from bites
- iii. Where specialist doctors are available who can manage emergencies

You need to keep the phone numbers for all available ambulance services handy with you at all times along with numbers of the CHO and MO.

You need to stay informed about the facility where the patient has been referred and follow up once he/she is discharged.

Table in Annexure II may be used to understand what cases can be treated at which level so that time is not wasted in referring to facility that is not equipped to address the case.

3.3.4. Follow-up Care

Most cases of bites do not require extensive care after discharge from the health facility, for complete recovery. The ASHA will be involved in identifying those persons who have received

treatment for bites but require follow-up care either for a short duration until complete recovery or for a longer period of time which is called palliative care. Your role will be to provide supportive supervision to ASHA in follow-up care and providing hand-holding support to ASHA whenever your intervention is required.

In cases where the patient is a **victim of bites**, you could provide the following care:

- ▶ Educate the person on wound care: Major bite wounds usually take a few weeks to heal completely. You can ensure that he/she visits the health facility regularly for change in dressing, takes prescribed medicines regularly and follows good hygiene practices.
- ▶ Check for any complication in healing: In case the wound gets infected or healing is delayed, the person will develop redness, swelling, fever, foul smell, pain around the wound, pus/discharge etc. If any of these is present, inform the person and refer him/her to the nearest SHC-HWC.
- ▶ Assistive devices: If the person has been provided with any assistive devices like wheelchair, walking crutches, immobilization devices etc., then on your follow-up visits, check for the status and maintenance of these devices and also note the difficulties the patient is facing if any. In case the person requires any assistive device after discharge for any disability that develops later, inform the CHO and facilitate arrangement of such devices from the PHC-HWC.
- ▶ If any person has been prescribed physiotherapy, facilitate by mobilizing them to the SHC-HWC for the same on designated days.
- ▶ In case a person develops permanent disability, ensure that he/she receives appropriate palliative care. Link him/her with the palliative care services provided through the AB-HWCs.
- ▶ Provide psycho-social support to help the person overcome the crisis.

3.3.5. Prevention and Awareness Generation at the Community Level

As you know, cases of bites are very much preventable for which you could use the following messages to educate the community.

1. Do not unnecessarily go near animals. Teach children to not harm animals and be careful if they play with animals. Do not leave small children unattended outside the house.
2. Stay alert and wear adequate protective clothes, shoes, etc. to prevent snake and scorpion bites while going to the field or other areas.
3. For farmers and people working in forests or fields – Always wear protective gear while going for work.
4. Make adequate safety provisions to prevent snakes, scorpions, other insects and animals from entering the house.

3.4. Obstetric Emergencies

3.4.1. Recognizing life threatening situations

It is important to understand that pregnant women are not only vulnerable to obstetric emergencies but could also be a victim of trauma/accident or any of the other emergency conditions. Hence, when you are attending to a distressed pregnant woman, always consider it an emergency. The following are signs of emergency:

- ▶ Any bleeding from the vagina
 - Heavy bleeding with severe stomach pain in the first three months of pregnancy
 - Heavy bleeding with cramping in the first three to four months of pregnancy
 - Bleeding with abdominal pain in the last three months of pregnancy
 - Severe bleeding within the first few days after delivery
- ▶ Headache and blurred vision
- ▶ Dizziness, loss of consciousness or fits
- ▶ Severe vomiting
- ▶ Severe pain in the abdomen
- ▶ Sudden and significant swelling of hands, face and feet
- ▶ Regular, increasingly intense contractions before 37 weeks of pregnancy



3.4.2. Management Protocol

Specific Measures

The first principles of dealing with obstetric emergencies are the same as for any emergency (see to the airway, breathing, and circulation). Eclampsia (headache, blurred vision, fits), Antepartum Hemorrhage (vaginal bleeding during pregnancy) and Postpartum Hemorrhage (vaginal bleeding few days after delivery), Ruptured Ectopic Pregnancy should be treated as emergencies and help should be called for as soon as possible. However, until help arrives, there are certain measures that you can take to stabilize the woman.

Eclampsia

If a pregnant woman presents with sudden headache, blurred vision and fits, provide basic first aid as you would in other cases of fits. Remember that the focus should be on keeping the airway clear of any obstructions, and seeing to it that the woman is able to breathe properly. The measures to take during fits include:

- ▶ Do not leave the woman unattended and keeping surrounding safe to avoid any maternal injuries due to fits (eg. keeping pillows to avoid injury from surrounding objects, remove any objects in the way that can injure the woman further).
- ▶ Placing a clean cloth between the teeth of the woman so that she does not bite the tongue. If the biting or jittering of the teeth is vigorous, do not attempt this since it could hurt your fingers.
- ▶ Placing her in recovery position after the fits stop.

Caution

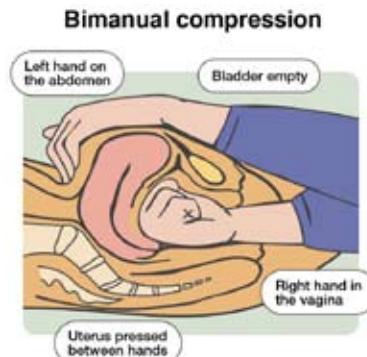
- ▶ Do not attempt to hold the woman's mouth open.
- ▶ Do not hold the woman down or try to stop her movements or restrain her arms/legs tightly.
- ▶ Do not offer the woman water or food until she is fully alert.

Antepartum haemorrhage:

If a pregnant woman presents with vaginal bleeding, immediately call the ambulance and refer her to the nearest health facility where a gynaecologist is available.

Post-Partum Hemorrhage:

1. Uterine massage can help control the bleeding and should be done until bleeding is visibly less. Rub the uterus gently from outside immediately to keep the uterus well-contracted.
2. Encouraging the woman to empty her bladder. If she cannot urinate on her own, help her by trickling warm water over her abdomen.
3. Maintain the woman's body warmth by covering with blanket.
4. Position the woman by making her lay flat, rising her legs to maintain blood pressure.
5. Keep the woman emotionally supported, and keep her calm.



Ruptured Ectopic Pregnancy

An **ectopic pregnancy** is a condition in which a fertilized egg implants itself outside the uterus, most commonly the fallopian tube. Ectopic pregnancies usually do not reach term, and rupture around 10-12 weeks causing severe internal bleeding which may lead to shock and present as an emergency.

In many cases of ectopic pregnancy, the first presentation may be after it has ruptured and the woman might not even know she was pregnant. A ruptured ectopic pregnancy always requires surgical intervention. Any of the following symptoms and signs warrant an emergency situation and immediate stabilization and referral to a specialist should be sought.

- ▶ Sudden, severe abdominal or pelvic pain
- ▶ Dizziness or fainting
- ▶ Pain in the lower back
- ▶ Pain in the shoulders (due to leakage of blood into the abdomen affecting the diaphragm)
- ▶ Cold clammy skin, rapid thready pulse indicating hypovolemic shock

In every case involving the above symptoms in a pregnant woman, you should suspect ruptured ectopic pregnancy and refer to the Community Health Centre (CHC) or District Hospital (DH), whichever is nearer, by first informing the Community Health Officer (CHO).

3.4.3. Safe Transport and Referral

Refer section 3.1.3 as well as annexure II.

3.4.4. Follow-up Care

Most cases of obstetric emergencies do not require extensive care after discharge from the health facility, for complete recovery. However, they do require follow-up care to check for any post-discharge complications like bleeding, loose stitches, infections etc. The ASHA will be involved in

checking for such complications during HBNC visits and inform you or the CHO for any suspected/reported complication. Your role will be to provide supportive supervision to ASHA in follow-up care and providing hand-holding support to ASHA whenever your intervention is required.

3.5. Neonatal Emergencies

3.5.1 Recognising life threatening situations

In a new-born or infant, the following are the signs of emergency:

- ▶ Abnormally high or low body temperature
- ▶ Drowsy, lethargic or unconscious
- ▶ Not being able to feed or vomiting everything
- ▶ Convulsions
- ▶ Grunting and severe chest in-drawing
- ▶ Fast breathing

3.5.2. Management Protocol

Specific Measures

In any type of neonatal emergencies, you should carry out ABCDE protocol, provide first-aid wherever possible and then the child should be referred to a facility where the presenting condition can be treated (Refer annexure II)

The most common neonatal emergencies are collectively called “**THE MISFITS**”

T: Toxicity
H: Heart disease
E: Endocrine
M: Metabolic (electrolyte imbalance)
I: Inborn errors of Metabolism
S: Sepsis
F: Formula Mishaps
I: Intestinal problems
T: Trauma
S: Seizures

3.5.3. Safe Transport and Referral

Apart from the referral protocol mentioned in section 3.1.3, in cases where you suspect a neonatal emergency, you should co-ordinate with the CHO and refer the case to the appropriate nearest facility.

3.5.4. Follow up care

Like you have already learnt in previous sections on follow up care, even infants who have suffered emergency situations could need follow-up care in order to make sure there is no complications. In such cases, you should educate the parents or guardians of the infant regarding wound care and report any complication to the CHO.

3.5.5. Prevention at community level

Neonatal emergencies could be any of the emergency conditions ranging from poisoning, burns, choking, drowning, acute abdomen, trauma, bites etc. that can be prevented by being aware and taking specific precautions against them. You will play an important role in raising awareness among community members about these emergencies and educating them regarding their prevention by targeting parents during immunization days, Village Health and Nutrition Days (VHNDs) etc.

3.6. Emergency conditions arising out of NCDs

3.6.1. Recognising life threatening situations

Some of the general signs that can be considered life threatening in relation to emergencies arising out of NCDs are:

- ▶ Sudden weakness in arms or legs (usually affects one side of the body)
- ▶ Sudden drooping or weakness in one side of face
- ▶ Sudden loss of balance, headache, dizziness or loss of consciousness
- ▶ Sudden blurring of vision
- ▶ Sudden difficulty in speech/inability to speak
- ▶ Sudden pain in the chest
- ▶ Diabetic emergencies

Low Blood Sugar Level	High Blood Sugar Level
1. Tiredness	1. Dry mouth
2. Sweating	2. Increased thirst
3. Mental confusion	3. Weakness
4. Dizziness or unconsciousness	4. Headache
5. Headache	5. Severe dehydration
	6. Nausea and abdominal discomfort
	7. Severely high blood sugar levels can cause coma

You shall learn more about specific emergency conditions in the section on management protocol.

3.6.2. Management Protocol

(a) General Measures

The general measures for management and prompt stabilization of emergency conditions arising out of NCDs is similar to the one you have learnt in the beginning of the chapter with the following exception.

The sequence of ABCDE protocol is different for cases suggestive of cardiac emergencies. When you are attending to a victim of cardiac emergency like cardiac arrest, the most important step is to allow blood to be pumped by the heart and hence, the suggested protocol for cardiac emergencies is **CAB** instead of (H)ABCDE/ABCDE.

In addition to this, you should follow the rest of the protocols under general measures that you have learnt.

(b) Specific Measures

As you have learnt earlier, the two most common NCDs – hypertension and diabetes – can lead to emergencies if not controlled. You have been trained about these complications in the module on non-communicable diseases. The following emergency conditions can arise as complications of uncontrolled hypertension and diabetes.

In NCD related emergency conditions, the most important step you must take is planning a proper referral. Apart from that, sometimes when you find no pulse, you will be needed to perform CPR (annexure I).

Stroke

It is characterized by:

- ▶ Sudden weakness in arms or legs (usually affects one side of the body)
- ▶ Sudden drooping or weakness in one side of face
- ▶ Sudden loss of balance, headache, dizziness or loss of consciousness
- ▶ Sudden blurring of vision
- ▶ Sudden difficulty in speech/inability to speak

A case of stroke must be immediately transferred to a tertiary care hospital.

Heart attack/cardiac arrest

It is characterized by sudden pain in the chest which may spread to left arm, difficulty in breathing and loss of consciousness. Sometimes a heart attack may present *only as sweating, nausea, tiredness, tingling and numbness in the extremities*.

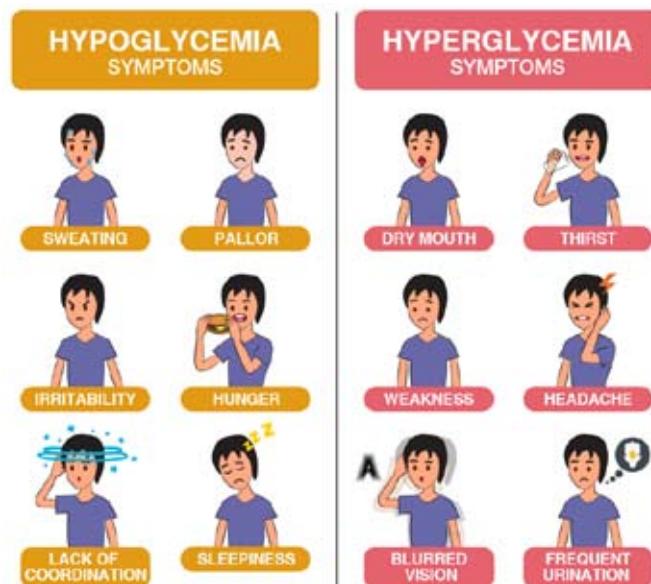
A case of heart attack must immediately be taken to the nearest health facility. The person may require Cardio-Pulmonary Resuscitation (CPR) (**Remember to follow CAB and not ABC**). See Annexure I for procedure of CPR.

Diabetic emergencies: High and low sugar in the body

Patients with diabetes have high blood sugar levels because of the body's inability to utilize the glucose. Diabetic patients follow a low sugar diet and take medicines which help the glucose to get utilized and thus keeps the blood sugar levels in check.

Diabetic emergencies arise in two situations:

1. When the disease is uncontrolled (the patient does not follow low sugar diet or does not take medicines) it leads to very high blood sugar level.
2. When the patient on diabetes medicine does not eat for a long time, it leads to very low blood sugar level.



The symptoms of high and low blood sugar levels have been given in the table in section 3.6.1. If a person who has a known history of diabetes shows any of these symptoms, refer him/her immediately to the nearest health facility.

3.6.3. Safe transport and Referral

(Refer to section 3.1.3)

3.6.4. Follow-up Care

In cases of **NCD related emergencies**, the follow-up care would consist of ensuring regular check-ups of the patient as well as educating him/her regarding strict adherence to dietary and lifestyle modification advice and medications, which you along with the CHO have already been doing.

3.6.5. Prevention and Awareness Generation at the Community Level

You have already been involved in generating community level awareness regarding NCDs like diabetes, hypertension, cancer etc. In addition to the work you have already been doing, you could also consider the following key messages in order to prevent emergencies related to NCDs (hypertension and diabetes):

1. All hypertensive and diabetic patients should get their blood pressure and blood sugar checked regularly, take medicines as prescribed, follow dietary advice, maintain healthy lifestyle and visit the doctor regularly.
2. Pregnant women with hypertension and other co-morbidities should undergo periodic monitoring of their vitals and keep family/ASHA informed.

3.7. Heat Exhaustion and Heat Stroke

As you are aware, India is a country of high humidity (especially in the southern coastal area) and extreme temperatures (summers in the northern states). In such conditions, heat illnesses are common considering long hours spent in harsh sun. Prolonged time in the sun could lead to dehydration (loss of water from the body) which could further cause or trigger heat illnesses. In the following section, you shall learn about the two most common heat illnesses namely heat exhaustion and heat stroke and how to help the victims of these illnesses.

What is Heat Exhaustion?

Heat Exhaustion is basically a warning that the body is getting too hot. The body on touch will feel cold and clammy because the temperature of body as well as the pulse is normal in such cases. Exhaustion in simple terms mean “getting tired”. Similarly, in heat exhaustion, the body is tired because of loss of water and salt from the body due to excessive sweating. Although heat illnesses can happen with anyone, it is more seen in elderly people.

What is Heat Stroke?

If Heat Exhaustion is left untreated, it could lead to more severe symptoms causing a ‘Heat Stroke’. This is the most serious heat illness and is caused by body temperature rising to 104 F (40 C) or higher. A heat stroke would need immediate medical attention and without any delay you should transport the victim to the nearest appropriate facility since untreated heatstroke can quickly damage your brain, heart, kidneys and muscles. The degree of damage that a heat stroke can cause will depend on the height of body temperature and the amount of time spent in the sun.

3.7.1. Recognising life threatening situations

Emergency conditions due to heat illnesses are common especially in extreme climatic regions. These are illnesses that occur due to prolonged exposure to high heat conditions. The symptoms of heat exhaustion and heat stroke are given in the table below:

Heat exhaustion	Heat stroke
1. Dizziness or fainting	1. Headache
2. Excessive sweating	2. No sweating
3. Cool, pale and clammy skin	3. Red, hot and dry skin (feels like fever)
4. Rapid and weak pulse	4. Rapid but strong pulse
5. Nausea or vomiting	5. Nausea or vomiting
6. Muscle cramps	6. May lose consciousness

3.7.2. Management Protocol

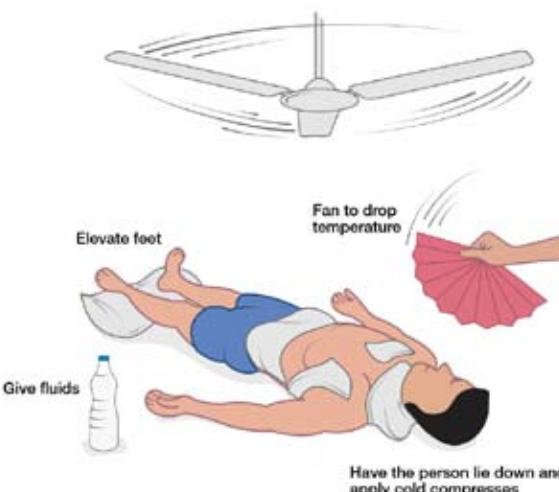
Specific Measures

In a case of **heat exhaustion**, assure the following:

1. Get the person to lie down in a cool place in the shade.
2. Loosen his/her clothing.
3. Apply cool, wet cloth on the forehead, neck, arms and other exposed areas of the body.
4. Fan the person with cool air.
5. Give sips of water slowly.
6. If vomiting occurs, refer immediately to the nearest health facility.

In a case of **heat stroke**, assure the following:

1. Start cool bath or sponging to reduce body temperature. Use extreme caution.
2. Start rapid cooling until body temperature reaches 38°C (100.4°F). External cooling is most effective. Place patient on a cooling surface, wet the victim's skin and dry with fan to optimize evaporative cooling, and place ice packs to the neck, cold water immersion is effective, but not practical. (Commonly used cooling techniques are given below).
3. Do not give fluids orally if the person is not conscious.
4. If the victim starts having fits (seizures), follow the stabilization protocol as learnt in section 3.9.2.



External cooling

What is external cooling?

It is a method that involves application of a cooling media (like cold water, ice, fanning etc.) to the skin, which causes removal of heat, usually resulting in a lower temperature. This type of cooling is important in extreme cases of heat illnesses. Some of the most commonly used cooling techniques are as follows:

1. Evaporative cooling: In very simple words, this means using air to cause cooling to the victim. This is very similar to how we use a hand fan in summers. You can use any object that is available at the site to cause this. Most commonly used objects could be a magazine, papers, cloth like dupatta etc. this is one of the most acceptable and readily available techniques for cooling and is also well tolerated by victims. (Remember, in case of a heat stroke, the victim shall not be seen sweating. In this case, you should first wet the victim's skin by splashing some water on the victim's face and body and then using a hand held fan etc. to cause evaporative cooling)

2. Immersive cooling: This is also a simple technique, however, it might not always be possible because you will need a water source, a bucket like vessel to hold the cold water etc. In cases where you have access to these materials, you can use this technique as it is also proven to be effective. The following steps are to be followed for conducting immersive technique:

- ▶ Fill a vessel (a bucket preferably) with ice-cold water.
- ▶ Dip the victim's hands/ feet in the bucket
- ▶ You can also dip a cloth in this water and put it on the forehead of the victim like is traditionally done during fever. More frequent ice pack/cloth change and reapplication of cold water will allow for more rapid cooling.

Caution:

DO NOT use immersive cooling in cases of classic heat exertion like in elderly, where evaporative cooling would be enough. You should use immersive cooling only in EXTREME situations.

While conducting immersive cooling, you should take care to monitor for 'shivering'. In case the victim shivers, you should stop the cooling immediately.

3.7.2. Cold exposure related illnesses (Hypothermia and Frostbite)

Similar to heat related illnesses, some parts of the Indian terrain are also prone to cold exposure related illnesses especially in the Himalayan regions, Ladakh, Siachen, Leh, owing to extreme cold weather. You might have come across cases where a thumb or a toe goes numb after a long exposure to extreme cold. Any such cases should always be treated as a medical emergency.

What is hypothermia?

Hypothermia is a sharp fall in the body temperature, caused by prolonged exposures to very cold temperatures. The body's temperature drops below 95° F (35° C) against a normal body temperature of 98.6° F (37° C). When the body temperature is dangerously low, the brain and body cannot function properly and hence it should always be treated as an emergency.

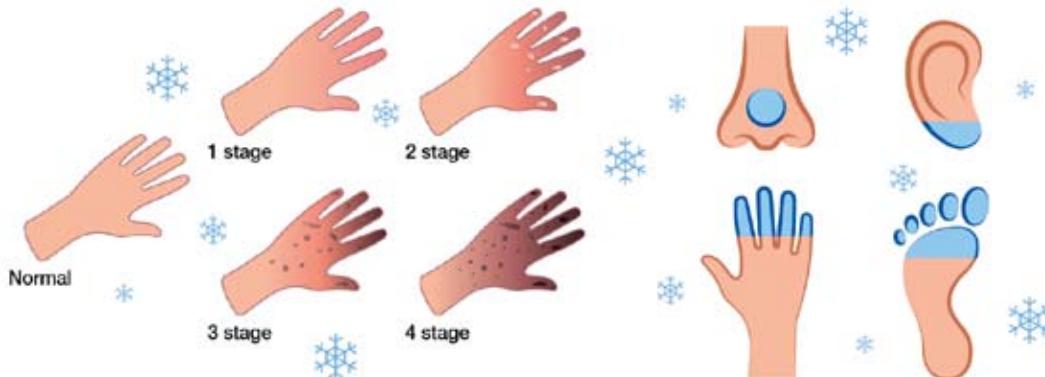
What is frostbite?

Frostbite is different from hypothermia in the sense that it is more localised. It affects the body parts that are far from the heart or those with large exposed areas to cold weather. Hypothermia affects the whole body. A person with frostbite on the arms or legs may also have hypothermia. Frostbite can occur when skin is exposed to a temperature of 0 °C (32 °F) or lower, resulting in

vasoconstriction. The resultant decrease in blood flow does not deliver sufficient heat to the tissue to prevent the formation of ice crystals. The anatomic sites most susceptible to frostbite include hands, feet, and exposed tissues (eg, ears, nose, and lips).

How is hypothermia different from frostbite?

Frostbite affects the body parts that are far from the heart or those with large exposed areas to cold weather while hypothermia affects the whole body. A person with frostbite on the arms or legs may also have hypothermia due to loss of body heat, causing lowering of body temperature.



3.7.2.1. Recognising life threatening situations

Hypothermia	Frostbite
Adults: <ul style="list-style-type: none"> ▪ Shivering ▪ Exhaustion ▪ Confusion ▪ Fumbling hands ▪ Memory loss ▪ Slurred speech ▪ Drowsiness Infants: <ul style="list-style-type: none"> ▪ Bright red, cold skin ▪ Very low energy 	<ul style="list-style-type: none"> ▪ Redness or pain in any skin area may be the first sign of frostbite ▪ A white or grayish-yellow skin area ▪ Skin that feels unusually firm or waxy ▪ Numbness- victim unable to feel the affected area

3.7.2.2. Management protocol

Specific Measures

In a case of **cold exposure related illnesses**,

1. Move the victim away from the cold exposure to a warm room or shelter.
2. You could use hot water bags/ bottles to help warm the affected area.
3. Do not use electric warmers or other dry heating sources as these could cause burns.
4. Do not rub or make the victim walk or use the affected body part.
5. If there are blisters, be careful to not break them or let the victim break them.
6. Remove any wet clothing the victim is wearing.

7. If the victim is conscious and alert, you could offer warm fluids like tea, warm milk or high energy food like chocolate etc.
8. Keep the body dried and wrapped, including their head and neck, in a warm blanket.
9. If the victim is unresponsive, on assessment, he/she may be in need of CPR or assisted breathing.

Note: If you are comfortable and willing, you could use skin-to-skin contact where your own body heat can be used to warm the victim, in cases where you are not able to find a hot water bottle/bag or blankets,

Caution: A victim of frostbite could often be unaware due to numbness in the skin of the affected body part. In such situations, the victim could be prone to self-harm. While stabilizing, you should be careful not to allow the victim to rub, scratch or massage the affected area

3.7.3. Safe transport and referral

Referral and transport is especially of prime importance if it is a case of heat stroke or the person presents with vomiting. In such cases, you should plan a referral to the nearest health facility by keeping CHO informed.

3.7.4. Follow-up Care

Heat related illnesses are mostly controlled with general measures or once treatment is completed and do not require follow up care for recovery. However, each case is different and if the MO or the CHO who treated the patient prescribes follow-up care (either due to any injuries or underlying disorder), you along with the ASHA should help the patient maintain treatment compliance and aid in the patient's recovery.

3.7.5. Prevention and Awareness Generation at Community Level

Generally heat illnesses are self-limiting and are largely preventable. The following precautionary measures can be used by you to create awareness in the community regarding the same.

1. Wear loose fitting, light colored clothes in summer. Always keep head covered when going out in the sun.
2. Avoid direct sun heat (especially during afternoon).
3. Rest in shaded places. For occupations which require working outdoors, take frequent breaks.
4. Avoid vigorous physical activities in hot and humid weather.
5. Drink plenty of fluids and water to stay hydrated during hot weather.

For cold exposure illnesses:

1. Wear woolen/warm multilayer clothing in winters or in areas with cold climate, adequately covering the extremities like feet, hands, chin, and ears.
2. Avoid long and direct exposure to extreme cold like snow, waterbodies etc
3. Consumption of locally available foods that help in warming up the body like peanuts, ghee etc.
4. Exercising or regular physical activity help warm up the body

3.8. Severe Allergic Reactions

3.8.1. Recognizing life threatening situations

Even though allergies are common, sometimes, allergic reactions may be life-threatening. Severe allergic reactions can be of two types. The warning signs are as follows:

- ▶ In the first type, there is swelling of the lips, tongue, face and throat which can lead to wheezing and difficulty in breathing. Sometimes swelling may also appear in the genitals, hands, and feet.
- ▶ In the second type, the blood pressure falls drastically leading to shock with symptoms like dizziness and fainting, mental confusion, weak and rapid pulse, cold and clammy skin, nausea and vomiting.



Sometimes mild allergic reactions may progress to severe allergy. Therefore it is also important to be cautious of mild allergic symptoms such as:

- ▶ Sneezing, itching of the nose, eyes or roof of the mouth, stuffy nose, watery, red or swollen eyes
- ▶ Tingling sensation in the mouth particularly due to food allergens
- ▶ Severe itching or hives (red, very itchy, smoothly elevated areas of skin) all over the body

3.8.2. Management Protocol

Specific Measures

The treatment for allergies is divided into two parts: History taking and Symptomatic treatment

History taking:

If the person is able to speak, a history of what caused the allergy should be taken so that it can be avoided in future. If the person is not able to speak, ask anyone who was there with him/her at the time the allergy began. You could ask if the cause of the allergy is any of the above-mentioned allergens that the patient might have come in contact with. If not, you should ask about any other substance that the patient could have been exposed to **for the first time**. If the person has had allergic reactions before, ask the person about what had caused it the previous time.

Symptomatic treatment:

Most of the times, you will see that the person suffering from such an allergic reaction will have symptoms as we learnt in the previous chapter. Proper and timely first aid can help the patient from progressing into a dangerous anaphylaxis shock. Sometimes, minor redness or itching can turn into a severe reaction within minutes and hence should not be ignored.

In such situations, first call for help and inform the nearest public health facility as well as the CHO about their readiness to take the case. To stabilize the patient till help arrives:

1. Lay the person flat with legs raised
2. Reassure the person
3. Loosen any tight clothing

4. Apply a cool, damp cloth on the hives, if present, to soothe the itching
5. Move the person to the shade since heat could worsen the symptoms

Caution:

- ▶ Do not allow the patient to stand or walk
- ▶ Do not place them in seated, standing, or upright position
- ▶ Do not give any other medicine
- ▶ Do not give any food or water to the person if he/she is breathless or unconscious

3.8.3. Safe transport and Referral

If you recognise the situation of the patient to be life-threatening based on the presenting symptoms, you should first call for help and inform the nearest public health facility as well as the CHO about their readiness to take the case.

Refer section 3.1.4.

3.8.4. Follow up Care

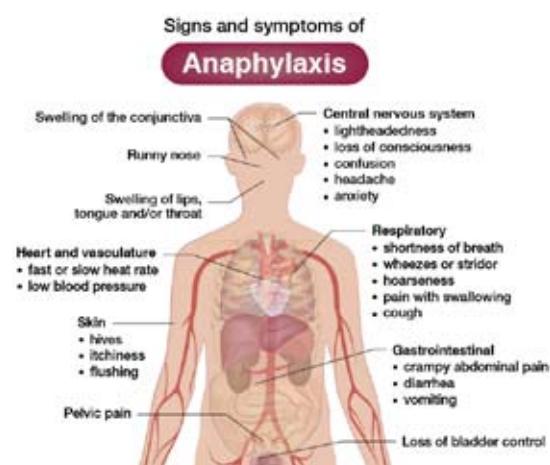
Follow up care is of importance when it comes to patients who have had an allergic reaction earlier. The care that the patient will need post treatment is not related to treatment, but it is actually to prevent further incidences as this one.

In case of **Anaphylaxis/Severe Allergic Reactions**, you could help the person identify the allergen (substance that caused the allergy) through a thorough history taking, and educate him/her to avoid the identified allergen from then onwards. This information can also come handy in case the situation repeats.

3.8.5. Prevention and Awareness Generation at the Community Level

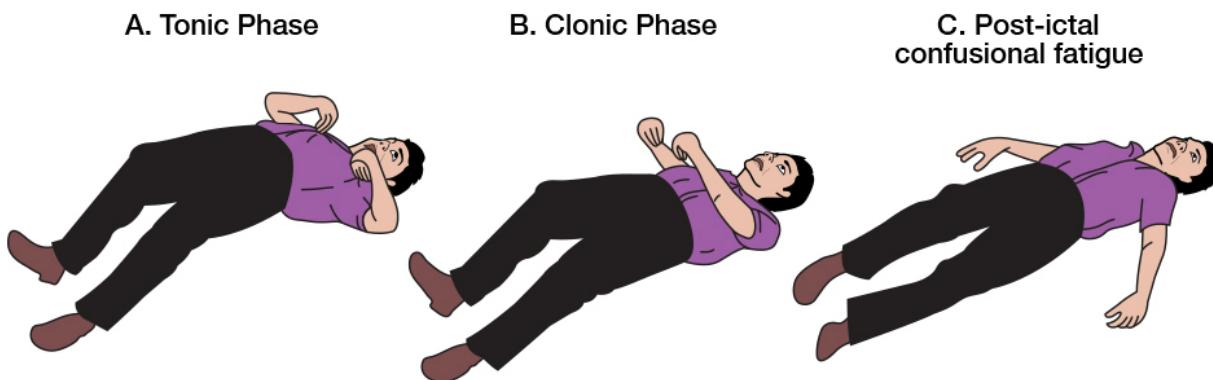
An Allergy is a condition where our body reacts to a foreign substance in the body which could either be inhaled or ingested. This reaction usually causes symptoms in the nose, throat, ears, skin and stomach. An allergic reaction usually starts within a few minutes. Some of these foreign substances include but is not limited to the following:

- ▶ **Airborne allergens** such as pollen, animal dander, dust mites and mould
- ▶ **Certain food** particularly peanuts, wheat, fish, shellfish, eggs and milk
- ▶ **Insect stings** such as from a bee or wasp
- ▶ **Medications** particularly penicillin or penicillin-based antibiotics
- ▶ **Latex or other substances you touch** which can cause allergic skin reactions



What could cause allergy in one person may not cause allergy in another, in the sense that allergens could be unique to individuals and hence it is difficult to identify the allergen unless the individual is exposed to it. This is why history taking is extremely important.

3.9. Seizures/Fits



3.9.1. Recognising life threatening situations

Fits (convulsions/seizures) can occur due to many underlying medical causes, in both adults and children. In case of a person suffering from fits, assure the following:

Identify whether the fits are affecting the entire body (Generalized) or some parts (Focal)

- Generalized fits involves shaking of the whole body (the person is on the floor and vigorously shaking, he/she may appear confused or may lose consciousness).
- Focal fits involves only some parts of the body (the person may have repetitive movements like chewing/blinking or rhythmic twitching of any body part).

3.9.2. Management Protocol

If the victim before you is having fits, you should not do anything that restricts the person's movements. However, you should make sure that the person does not hurt him/herself during the fits episode due to any obstacles in the way. You can follow the below mentioned steps to ensure the same:

- Keep surrounding safe (eg. keep pillows to avoid injury from surrounding objects, remove any objects in the way that can injure the patient further).
- Place a clean cloth between the teeth of the patient so that he/she does not bite the tongue.
- Place patient in recovery position after the fits stop.

Caution

- ▶ Do not attempt to hold the person's mouth open.
- ▶ Do not hold the person down or try to stop his/her movements or restrain his/her arms/legs tightly
- ▶ Do not offer the person water or food until he/she is fully alert.

3.9.3. Safe transport and Referral

As you learnt in the management protocol, you should never restrict the movements of the person who is having fits. Hence, you should also not move or transport the person while the person is having seizures. Call for help as soon as you attend the patient and keep CHO informed about the referral. A person experiencing a seizures, needs to be referred to a facility that has availability of a CT scan.

Remember that you should move or transport the patient only when the person has stopped seizures and movements are stable.

3.9.4. Follow up Care

Patients of epilepsy or fits generally require long-term follow-up care especially if the root cause of the epilepsy has not yet been diagnosed. For this, a thorough history taking is extremely important followed by investigations. Hence, when you attend to a patient who is having fits, you should be very observant as it will help in a proper history and diagnosis.

Once the diagnosis has been established, the patient might require help in terms of treatment compliance, side effects of the treatment medications etc which you could help with during home visits with ASHA. You could also undertake educating the family regarding the condition so that the patient receives the necessary support. You should also make sure that the patient as well as the family is aware of the specifications of the disorder, the medications, the possible side-effects with the medication, recurrence etc.

Any recurring episode needs to be reported to the CHO so that appropriate treatment can be done. In case the person develops permanent disability, ensure that he/she receives appropriate palliative care. Link him/her with the palliative care services provided through the AB-HWC and provide psycho-social support to help the person overcome the crisis.

5.9.5. Prevention and Awareness Generation at the Community Level

Lack of awareness regarding epilepsy or seizures at the community level acts as a barrier in providing treatment and care in the community. Not all seizures are preventable but seizures that occur as a result of trauma from accidents, stroke or other heart diseases, infections, and maternity related events can be prevented to certain extent. You as an ANM, could make the community aware regarding the causes of epilepsy that are preventable as well as treatment options available.

Some key messages that you can make use of in the community are

- ▶ Encouraging immunization for every individual in the community (so as to protect the community from preventable infections)
- ▶ Ensuring pregnant women receive proper ANC
- ▶ Generating awareness regarding safety measures to avoid head injuries
- ▶ Promoting healthy lifestyle in order to avoid stroke and other heart diseases.

5.10. Choking

Even though choking is more common in children, it can also happen in adults. The object on which the victim has choked, might block the throat. In such cases, the victim might have difficulty in breathing or talking and sometimes the skin might turn blue.

5.10.1. Recognizing life threatening situations

In some cases, choking can be life-threatening since the object the victim is choking on could cut off airway giving the brain limited oxygen. The brain can only function without oxygen for few minutes and this is why it is important to attend to the victim of choking as soon as possible. A person who's choking may cough continuously until they expel the food or liquid from their throat

or airway. However, in some cases, the object, food, or liquid gets stuck in the throat and cuts off the air supply. Some of the signs to identify if the case is life-threatening and needs emergency care are following:

- ▶ The victim is unable to speak, cough, make noise or breathe
- ▶ Bluish tint to the lips, skin, or nails from a lack of oxygen.

5.10.2. Management Protocol

Specific Measures:

The object on which the victim has choked, might block the throat. In such cases, the victim might have difficulty in breathing or talking and sometimes the skin might turn blue.

The tables given below shows how to manage a case of choking. Either technique can be used.

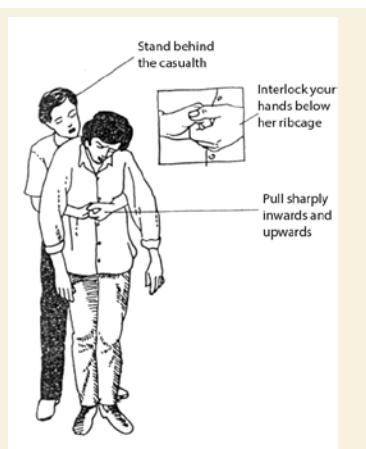
For an adult:

Step 1	Reassure the person.
Step 2	Bend him/her forwards so that the head is lower than the chest.
Step 3	Encourage him/her to cough if possible.
Step 4	Give up to five sharp blows on the back between shoulder blades with the flat of your hands. When to slap back when to compress the bell?



OR

Step 1	Stand behind the victim and put both arms round the upper part of his/her abdomen. If the choking patient is a child, position yourself to the correct height. If the choking patient is a pregnant woman, place your arms below the chest and above the level of the abdomen.
Step 2	Lean the victim forward.
Step 3	Clench your fist and place it between the umbilicus (navel) and the bottom of sternum (breast bone).
Step 4	Grasp this hand with your other hand and pull sharply inwards and upwards.
Step 5	Repeat up to five times.



For a small child:

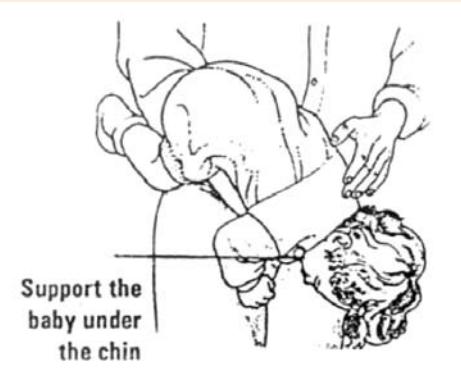
Step 1 Place the child over your knee



Step 2 Slap him on the back between shoulder blades using less force than for an adult. Use the heel of one hand to give up to 5 back slaps between the baby's shoulder blades.

For a baby:

Step 1 Lay the baby along your forearm



Step 2 Slap him on the back between shoulder blades using less force than for a child. Use the heel of one hand to give up to 5 back slaps between the baby's shoulder blades.

Note: If the choking patient is unconscious, do not attempt these techniques. Look for and remove the foreign body ONLY if it is visible. Refer to the hospital immediately.

3.10.3. Safe transport and Referral

Refer section 3.1.3

3.10.4. Follow up Care

Generally the hazards from choking are short-lived and do not require post-treatment. However, as the ANM you could visit the victim post-treatment along with the ASHA to track any complications.

3.10.5. Prevention and Awareness Generation at Community Level

Children or even adults usually choke from objects that they have accidentally ingested. However, they may also choke when eating too quickly or when talking/laughing with food in their mouths, inhaling smoke (choking on the soot of the smoke) etc. As an ANM, you can help create awareness in the community regarding prevention of choking accidents using the following messages:

1. Do not leave infants and small children unattended around toys or other small objects like coins, bottle caps, batteries etc.
2. Stay alert while eating or drinking. Supervise small children while they eat or drink. Educate parents to discourage their children talking/laughing while eating or eating too fast etc.
3. Making it a habit to always keep water next to oneself while eating.
4. Educate community on how to relieve obstruction due to choking. Can be taught to volunteers, school kids, etc

3.11. Poisoning

3.11.1. Recognizing life-threatening situations

Poisoning can be caused by substances that are easily available both inside and outside the house. Cases of poisoning can be both accidental and intentional. However, irrespective of the cause and intention, you as an ANM, should always report cases of poisoning to the CHO and provide prompt stabilization and facilitate referral of the victim to appropriate nearest facility. Some of the signs of poisoning that are life-threatening are:

The effects of poisoning depend on the substance, amount, and type of contact as well as the age, weight, and state of health of the victim.

Possible symptoms of poisoning include:

- ▶ Nausea and/or vomiting
- ▶ Diarrhoea
- ▶ Rash
- ▶ Redness or sores around the mouth
- ▶ Dry mouth
- ▶ Drooling or foaming at the mouth
- ▶ Trouble breathing
- ▶ Dilated pupils (bigger than normal) or constricted pupils (smaller than normal)
- ▶ Confusion
- ▶ Fainting
- ▶ Shaking or seizures

3.11.2. Management Protocol

Specific Measures

A person who has ingested or inhaled poisonous substance should be immediately stabilized and referred to the nearest health facility as soon as possible. Reassure the person. Rinse mouth of the person with water in case of ingested poison and move him/her to a place with adequate ventilation so that he/she gets fresh air to breathe, in case of inhaled poison.

Caution

- ▶ Do not make the person vomit.
- ▶ Do not make the person eat or drink anything.

3.11.3. Safe Transport and Referral

Refer 3.1.3.

3.11.4. Follow-up Care

Refer 3.1.4.

3.11.5. Prevention and Awareness Generation at the Community Level

Cases of poisoning are largely preventable and the best way to do that is to avoid contact with harmful substances.

You can use the following messages to create awareness in the community regarding the prevention of poisoning:

1. Keep all household substances out of the reach of children. You should put them in high or locked cabinets.
2. Wear protective clothing, like gloves, when you use cleaners and chemicals.
3. If you use chemicals inside the house, keep the area well aired.
4. Do not mix chemicals as mixed chemicals could become poisonous.
5. Keep medicines and chemicals in their original containers and label every such container.
6. Get rid of old or expired medicines and household products.
7. Do not drink spurious liquor.

3.12. Near-Drowning

3.12.1. Recognizing life-threatening situations

Even though we use the word “drowning” commonly to refer to suffocation from water entering the nose and mouth of a person, the correct word to be used is “near-drowning” which means almost dying from suffocating under water. This is the stage where emergency care is needed to save the victim’s life.

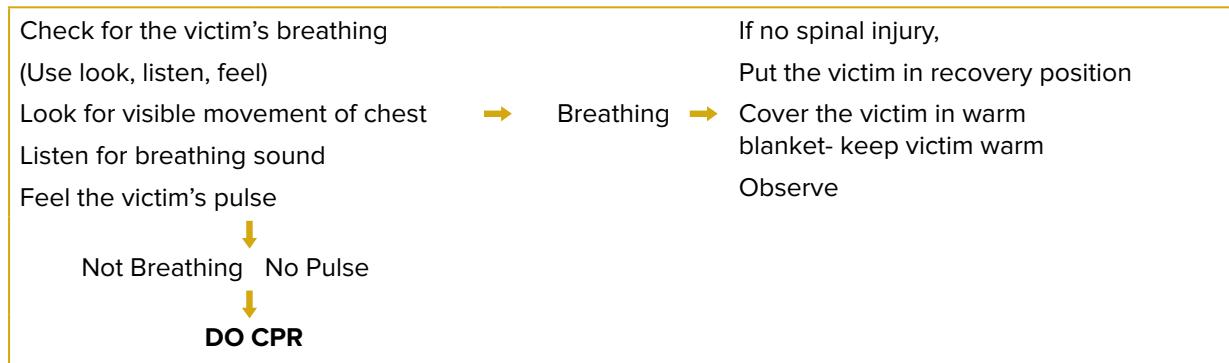
A victim of near-drowning could most probably be unresponsive which you will learn when you conduct AVPU. The other signs that are life-threatening are:

- ▶ Cold or bluish skin
- ▶ Abdominal swelling
- ▶ Chest pain
- ▶ Cough
- ▶ Vomiting
- ▶ No breathing
- ▶ Erratic breathing
- ▶ No pulse
- ▶ Nail beds, slow or no circulation
- ▶ Mouth, nose or skin turning blue

3.12.2. Management Protocol

AVPU and ABCDE are extremely important in cases of near-drowning as the victim might be unresponsive on assessment and may be in need of CPR or assisted breathing.

When you **Check for ABCDE** in a victim of near-drowning, you could follow the below mention approach:



Specific Measures

In a case of drowning or near drowning, you could undertake the following measures:

- ▶ Remove the victim from water immediately
- ▶ Assess for breathing. If the victim is breathing then place him/her in recovery position. If the victim is not breathing or moving then he/she might require Cardio-Pulmonary Resuscitation (CPR) (As shown in the previous section)
- ▶ Be very careful when handling the person and performing CPR, as the individual could have a neck or spinal injury. Do not move or turn their neck or head. Stabilize the neck by manually holding the head and neck in place or placing towels or other objects around the neck to support it.
- ▶ Remove wet clothes and cover the victim with a blanket to prevent hypothermia (support the neck while removing the victim's clothes)
- ▶ Remove any visible foreign body, weed, sand or mud from the mouth
- ▶ Transfer the victim to the appropriate nearest health facility immediately.

3.12.3. Safe transport and Referral

Refer section 3.1.3.

3.12.4. Follow up Care

Refer section 3.1.4.

3.12.5. Prevention and Awareness Generation at the Community Level

1. Do not leave infants and small children unattended around water bodies.
2. Do not leave vessels filled with water uncovered around small infants and children, eg. Buckets, drums, gamla, etc.
3. Avoiding alcohol consumption while driving or boating or playing near water bodies

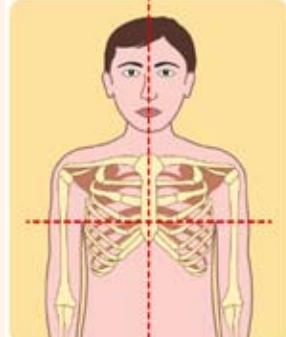
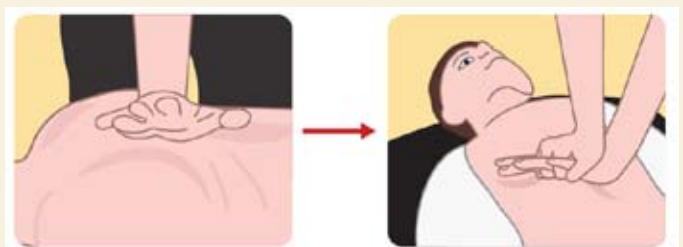
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Annexures

Annexure I: Cardio-Pulmonary Resuscitation (CPR)

CPR in adults

Step 1	Kneel by the side of the victim	
Step 2	Place the heel of one hand in the centre of victim's chest.	
Step 3	Place the heel of your other hand on top of the first hand.	
Step 4	Interlock the fingers of your hands and ensure that pressure is not applied over the victim's ribs.	

Step 5	Position yourself vertically above the victim's chest and with your arms straight, press down on the sternum 4-5 cm	
Step 6	After each compression release all the pressure on the chest without losing contact between your hands and sternum.	
Step 7	Repeat at the rate of minimum 100-120 compressions per minute (a little less than 2 compression a second).	
Step 8	Compression and Release should take equal amount of time.	

Combine chest compressions with rescue breaths

After 30 compressions give mouth to mouth breathing to the victim.

Give a total of two rescue breaths and the return your hands without delay to the correct position on the sternum and give a further 30 chest compressions.

Continue with chest compression and rescue breaths in a ratio of 30:2.

Stop to recheck the victim only if he starts breathing normally; otherwise do not interrupt resuscitation.

Only CPR

If you are unable or not willing to give rescue breaths, give hands only CPR.

If chest compressions only are given these should be continuous at the rate of 100 per minute.

Stop to recheck the victim only if he starts breathing normally; otherwise do not interrupt resuscitation.

Two-person CPR

If there are two trained personnel (rescuers) present at the scene, CPR is conducted by both persons in turns. They should coordinate to perform chest compressions. If the rescuers performing CPR are unable or not willing to give rescue breaths, hands only CPR should be done.

In the two-person CPR, rescuers switch positions after about every two minutes. One of the rescuers is positioned near the chest area and gives chest compressions while the other one is positioned near the head of the victim and gives after every 30 compressions. This position allows quick position changing.

Switching regularly and quickly ensures that the depth and the rate of compressions are adequate. The two-person CPR method allows rescuers to continue performing CPR for hours until medical help arrives.

Indications to start chest compressions in infants (or children)

- ▶ When no define pulse is palpable in 5-10 seconds.
- ▶ When pulse rate is less than 60 beats/minute.

CPR in Children

The adult sequence may also be used for children but following minor modifications in the sequence will make it more suitable for use in children:

1. Give initial rescue breaths before starting chest compressions.
2. If you are on your own perform CPR for approximately one minute before going for help.
3. Use one or two hands as needed for a child over one year to achieve adequate depth of compression (about **2 inches**) at the rate of at least **100 per minute**, at the centre of the chest.
4. Tilt the head back and listen for breathing. If not breathing normally, pinch nose and cover the mouth with yours and blow until you see the chest rise. Each breath should take 1 second.

Caution: Breaths can be omitted during pandemic times and hands-only CPR may be performed.

CPR in Infants

For checking the pulse in infant, brachial pulse is preferred –it can be felt in the middle of upper arm on the medial side. CPR even if HR is <60.

1. Identify inter-mammary line
2. Press with two fingers just below the centre of the inter-mammary line.
3. Compress chest by 1/3 to 1/2 of the depth of the chest (about **one and a half inches**). Give 15 gentle chest compressions at the rate of at least **100 per minute**.
4. Open the airway using a head tilt lifting of chin. Do not tilt the head too far back.
5. If the baby is not breathing or not breathing normally, cover the baby's mouth and nose with your mouth and give 2 gentle breaths. Each breath should be 1 second long. You should see the baby's chest rise with each breath.



Caution: Breaths can be omitted during pandemic times and hands-only CPR may be performed.

Annexure II: When and where to refer

Referral plan for the commonly presenting emergency conditions

Village level	SHC-HWC	PHC-HWC
SHC-HWC (CHO)	PHC-HWC (MO)	FRU/DH/Tertiary Care Centre (Specialist/MO)
▪ Simple Burns	▪ Fever with altered mental status	▪ Chest Pain
▪ fresh scratches / superficial	▪ Fever with Headache/ chest Pain/ Jaundice	▪ Cardiac problems (e.g. : Heart block, CHF, rhythm disturbances)
▪ wounds	▪ Chest Pain	▪ Breathing problems (difficult breathing, shortness of breath), Choking
▪ Animal/insect bites	▪ Choking	▪ Unconsciousness/ Fainting, Disorientation/ Stroke
▪ Chest Pain (only for first aid)	▪ Simple Burn injuries including chemical and acid burn	▪ Shock (including due to blood loss, dehydration etc.)
▪ Uncomplicated choking	▪ Convulsions, Epileptic seizures Headache	▪ Uncontrollable bleeding, e.g.: nose bleed, hematuria
	▪ Unconsciousness/ Fainting, Disorientation	▪ Painful Bleeding P/R
	▪ Breathing Problems (difficult breathing, shortness of breath), hanging / Drowning / Electrocution / Stroke	▪ Cyanosed infant/ child, (e.g.: Foreign Body inhalation)
	▪ Abnormal bleeding Per Vagina	▪ Convulsions, Epileptic Seizures, Diabetic emergencies
	▪ Ongoing bleeding (Blood in vomitus, Blood in cough, Blood in urine, Nose bleeding etc)	▪ Animal bites, snake bites/ Scorpion bite
	▪ Acute abdominal pain, Drug overdose, Poisoning - with stable vital signs	▪ Drowning
	▪ Severe allergic reactions	▪ Poisoning -unstable vitals
	▪ Minor head Injury and other Musculo skeletal injuries	▪ Acute abdominal pain (severe), Burns and inhalational injuries (including steam, acid attack and smoke inhalation)
	▪ Suspected spine Injury (any) Injury to a pregnant Woman	▪ Musculo skeletal injuries (e.g.: Road Traffic Injuries, fall from height etc.)
		▪ Injuries due to weapons (e.g.: gunshot wound, Stab wounds etc.)
		▪ Injuries due to violence (e.g.: Suspected sexual assault,domestic violence)
		▪ Any other life threatening condition

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Abbreviations

AB	Ayushman Bharat
ABC	Airway Breathing Circulation
ABCDE	Airway, Breathing, Circulation, Disability, Exposure
ACLS	Advanced Cardiovascular Life Support
ACS	Acute Coronary Syndrome
AED	Automated External Defibrillator
AF	ASHA Facilitator
ALS	Advanced Life support
AMBU	Artificial Manual Breathing Unit
AMIs	Acute myocardial infarctions
ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activists
ASV	Anti-Snake Venom
AVPU	Alert, Voice, Pain, Unresponsive
AWW	Anganwadi Worker
BGL	Blood Glucose Levels
BLS	Basic Life Support
BP	Blood Pressure
BSA	Burns of Special Areas
BVM	Bag Mask Ventillation
CAB	Circulation, airway, breathing
CCF	Congestive Cardiac Failure
CHC	Community Health Centre

CHO	Community Health Officers
COPD	Chronic Obstructive Pulmonary Disease
CHW	Community Health workers
CMO	Chief Medical Officer
COVID-19	Corona Virus Disease-19
CPR	Cardio-Pulmonary Resuscitation
CRT	Capillary Refill Time
CVAs	Cerebrovascular accidents
DALYs	Disability-adjusted life-years
DBP	Diastolic Blood Pressure
DH	District Hospital
DNA	Deoxyribonucleic Acid
DPR	Detailed Project Report
ECG	Electrocardiogram
EMT	Emergency Medical Technician
FAST	Focused Assessment with Sonography in Trauma
FGD	Focussed Group Discussion
FLWs	Front line workers
FRU	First Referral Unit
GBD	Global Burden of Disease
GCS	Glasgow Coma Scale
GDP	Gross Domestic Product
GoI	Government of India
GRS	Grievance Redressal System
HR	Human Resource
HWC	Health & Wellness Centre
IDSP	Integrated Disease Surveillance Programme
IEC	Information Education Communication
ISBAR	Identity, Situation, Background, Assessment, Recommendation
IV	Intravenous
IV/IO	Intra-venous/ Intra-osseous line
JAS	Jan Arogya Samithi
LMA	Laryngeal Mask airway
MAS	Mahila Arogya Samithi
MOANS	Mask Seal, Obesity, Age, No Teeth, Stiff
MD	NHM Mission Director- National Health Mission

MLC	Medico legal cases
MLP	Mid-Level Providers
MLR	Medico legal report
MO	Medical Officer
MoHFW	Ministry of Health & Family Welfare
MPW	Multi-Purpose Workers
MPW-M	Multipurpose Worker-Male
NCC	National Cadet Corps
NHSRC	National Health Systems Resource Centre
NREGA	National Rural Employment Guarantee Act
NRP	Neonatal Resuscitation Protocol
NS	Normal Saline
OPD	Out Patient Department
ORS	Oral Rehydration Therapy
PAT	Paediatric Assessment Triangle
PHC	Primary Health Centre
PHC-HWC	Primary Health Centre - Health and Wellness Centre
PIP	Program Implementation Plan
PPE	Personal Protective Equipment
PPH	Post- Partum Haemorrhage
PR	Per-Rectally
PRI	Panchayati Raj Institutions
RDT	Rapid Diagnostic Test
RICER	Rest, Ice/Immobilisation, Compression, Elevation , Referral
RIGHT	Reassure, Immobilise, Get to Hospital, Tell
RR	Respiratory Rate
RTI	Road traffic injuries
RL	Ringers Lactate
SAMPLE	Signs & Symptoms, Allergies, Medications, Past Medical History, Last Oral Intake, Events surrounding the injury or illness
SBCC	Social Behaviour Change Communication
SBP	Systolic Blood Pressure
SC	Sub Centre
SHC	Sub- Health Centre
SHC-HWC	Sub Health Centre - Health and Wellness Centre
SN	Staff Nurse
SOP	Standard Operating Procedure

SOPs	Standard operating protocols
SpO ₂	Partial Pressure of Oxygen
TABC	Temperature, Airway, Breathing, Circulation
TBSA	Total Body Surface Area
TOR	Terms of Reference
ULB	Urban Local Bodies
UHC	Universal Health Coverage
UPHC	Urban Primary Health Centre
VHSNC	Village Health Sanitation and Nutrition Committee
VHSND	Village Health Sanitation & Nutrition Days

Note

Note

Namaste!

You are a valuable member of the Ayushman Bharat – Health and Wellness Centre (AB-HWC) team committed to delivering quality comprehensive primary healthcare services to the people of the country.

To reach out to community members about the services at AB-HWCs, do connect to the following social media handles:

-  <https://instagram.com/ayushmanhwcs>
-  <https://twitter.com/AyushmanHWCS>
-  <https://www.facebook.com/AyushmanHWCS>
-  https://www.youtube.com/c/NHSRC_MoHFW



National Health Systems Resource Centre