

N. SPECIFIC EMERGENCY SITUATIONS AND DISASTER MANAGEMENT

In this chapter you will learn about:

- Emergencies at school.
- Emergencies at work.
- Road and traffic accidents.
- Emergencies in rural areas.
- Disasters and multiple casualty accidents.
- Triage.

N.1 EMERGENCIES AT SCHOOL

Children are highly vulnerable to injuries and accidents. Usually these are only minor bruises and grazes, but sometimes the child may incur a severe accident resulting in fracture, bleeding, suffocation, fainting, burns, drowning or electric shock (etc.).

Also, a school staff member may suffer a heart attack or a respiratory disorder with which first aiders have to cope.

Under these circumstances the first aider should be able to rise to the occasion, instead of getting nervous. There are several simple procedures anyone can learn and, if correctly and immediately applied, can make the difference between life and death.

Children are liable to the same type of emergencies and injuries as adults in similar circumstances. Details on how to handle emergency cases are described in the various chapters of this training programme. The procedure of attending an emergency always remains the same and includes the following:

1. Assess the situation.
2. Safety first.
3. Alert and seek help.
4. Provide first-aid.
5. Transport or refer to a healthcare facility, if needed.
6. Hygiene.

Training and exercising helps the first aider to act swiftly, calmly and in the correct way. There is no substitute for proper training!

The school management should ensure that:

- a well-equipped first aid room or station with the necessary materials is available,
- a trained first aider(s) is(are) available in the school or is on call, and
- in each class at least one child (preferably more) is trained in first aid.

Having trained first aiders available is a great asset to the school at the time of emergency.

It is again underlined that there is no substitute for proper training. The Red Cross and St John Ambulance organize first aid trainings for teachers, staff and students. Make sure each school has a SOP (Standard Operating Procedures) for any disaster including violence by fellow students and others.

N.2 EMERGENCIES AT WORK

A common injury in workshop and factories is a worker being stuck in or pinned down under the machinery. This can result in twisted limbs, lacerations, severe bleeding and fractures, and may lead to shock.

In some cases it is not possible to extricate or release the victim easily. In all cases, the machinery should be stopped immediately, the power of the machine cut off and a person who is familiar with handling the machine or a senior foreman should be called to the scene.

Most modern machines have automatic releasing devices. Eventually, machine parts may have to be dismantled to get access and release the casualty.

The first aider must assess the situation, ensure the safety for himself and casualty, control any bleeding, provide the necessary first aid, prevent shock and reassure the casualty. He continuously needs to observe the casualty's condition. It is best to cover any injured or burned parts when possible. Provide CPR when needed, and arrange for immediate medical aid on site or transport to a healthcare facility or hospital.

Details on how to handle this and other emergency cases are described in the various chapters of this training programme. The procedure of attending an emergency always remains the same and includes the following:

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Training and exercising helps the first aider to act swiftly, calmly and in the correct way. There is no substitute for proper training!

The workshop or factory management should ensure that:

- a well-equipped first aid room or station with the necessary materials is available;
- a trained first aider(s) is (are) available in the workshop or factory, or is on call;
- preferably some workers (or all) are trained in first aid; and
- all the workers should be sensitized about possible hazards and help available.

Having trained first aiders available at the workplace is a great asset to the workshop or factory at the time of emergency.

In case of accidents in deep mines such as coal mines rescue work is also very important besides first aid and is to be arranged urgently. Only trained specialised rescuers with special safety devices can provide this. All mines have to arrange the continuous availability of these teams and the required rescue materials.

It is again underlined that there is no substitute for proper training. The Red Cross and St John Ambulance organize first aid trainings for workers, miners and laypeople.

N.3 ROAD AND TRAFFIC ACCIDENTS

On many occasions the victims of road side accidents remain lying on the spot without medical aid or any help of the public until the arrival of police, which in many cases may take time.

The members of the public do not basically have an indifferent attitude in such situation, but they have a fear that instead of receiving credit for helping the injured or by transporting him to a medical facility or hospital, there might be harassment by the police who might look to them with suspicion. They may also feel that they will have to bear the expenditure of the transportation.

This thinking is not correct. A person who is lying helpless can be relieved from sufferings if someone provides the appropriate first aid and transport him to the nearest medical facility. Even a little knowledge of first aid of trained laypeople can save lives.

To overcome this difficulty and to create public awareness of the moral duty to help, the government, the court and the police have been issuing instructions via the press, posters and radio- and TV-spots that members of public are to be given a positive response in their noble task helping and transporting the injured at the earliest to the healthcare facility or hospital for further medical aid. Instructions have also been given to police staff to ensure that such persons who bring an injured to the hospital for medical aid are not be detained. It should suffice for the emergency centres in hospitals to ask only following questions to the person who brings the injured to the hospital:

1. Where have you brought this casualty from?
2. Do you know anything about the cause of the injury of the casualty?
3. May I have your particulars?

It is likely that the person would answer the first question, but may not be able to answer the second one. He might hesitate to answer to the third question, in which case it should not be insisted upon. The escorts should, under no circumstances be detained in the hospital for interrogation. On the other hand he should be treated with courtesy.

However, rendering aid to the injured is the moral and civil duty of each and every one of us.

Details on how to handle these emergency cases are described in the various chapters of this training programme. The procedure of attending an emergency always remains the same and includes the following:

1. Assess the situation.
2. Safety first.
3. Alert and seek help.
4. Provide first-aid.
5. Transport or refer to a healthcare facility, if needed.
6. Hygiene.

Training and exercising helps the first aider to act swiftly, calmly and in the correct way. There is no substitute for proper training!

Having trained first aiders available is always a great asset to the public at the time of emergency.

In air crash or railway accidents, comprehensive skilled medical facilities are made available by the concerned authorities. The instructions issued by these teams are to be followed.

It is again underlined that there is no substitute for proper training. The Red Cross and St John Ambulance organize first aid trainings for commercial drivers, driving schools and laypeople.

Emergency telephone numbers (for example, police, fire, ambulance etc.) should be repeatedly displayed at important places and in media.

N.4 EMERGENCIES IN RURAL AREA

Medical facilities are often inadequately available, especially in the remote villages. It is also difficult to transport the injured or sick persons due to difficult roads or the non-availability of proper transport services. A *charpai* could be used in the village in place of stretcher.

In rural areas following specific types of injuries are frequent:

- Fall from a tree or fall of a branch onto a victim (people have the habit to sit or sleep under the shade of trees in the summer).
- Fall from walls or roofs. The roofs of houses in villages have usually no parapet walls and children may fall from the roof.
- Collapsing of mud walls or roofs of houses onto people.
- Caving in of mud while digging and getting buried under the mud.
- Fall from horseback, or getting kick of a horse or donkey or other animals.
- Fall from a *jhulah* (suspension bridge) when the rope snaps.
- Drowning in the village pond, well or in canal water.
- Railway track accident (when walking on or crossing a railway line or when sitting or hanging on a wagon).
- Being crushed under a bus, car, tractor or other vehicles.
- Boat disasters.
- Bites of snakes, scorpions, leeches, dogs (rabies!), monkeys, tigers, jackal or camels.
- Heat stroke, heat exhaustion and hyperthermia.
- Frostbite in hilly areas.
- Food poisoning.
- Poisoning by DDT or other insecticides, pesticides and fertilizers.
- Cut from sharp agricultural equipment. ("thresher injuries")
- Electrocution from electric wires, especially over-head high tension wires.
- Burns of various degrees
- Acute febrile illness (e.g. malaria)
- Acute diarrhoeal diseases leading to dehydration (e.g. cholera).
- *Lathi* blow, stone throwing, stab wound, *kirpan* (or other sharp weapon) wound or gunshot wound as a result of fighting between rival groups.
- Carbon Monoxide (CO) poisoning by sleeping in a room where *sigri* is kept burning especially at night, when room is kept closed and there is no ventilation
- Tetanus infection from wound etc.

Many of these problems can be handled by a trained first aider in the initial stage.

Training and exercising helps the first aider to act swiftly, calmly and in the correct way. There is no substitute for proper training!

Having trained first aiders available is a great asset to the community at the time of emergency.

It is again underlined that there is no substitute for proper training. The Red Cross and St John Ambulance organize first aid trainings for communities and laypeople.

N.5 DISASTERS AND MULTIPLE CASUALTY ACCIDENTS

India is such a vast country that some part is affected by flood, drought, cold, heat-wave, fire, earthquake, vehicle or train accidents ... at any given time. These incidents can cause huge losses from collapsed buildings, damaged crops to large number of human casualties. Sometimes disasters strike suddenly.

Rendering of first aid to the victims affected by a disaster is a very important relief activity and is a part of the first aid training programmes. Mass casualty management stresses the importance of the role of first responders and first aiders in disaster relief and counts on their preparedness to respond to emergency situations.

In recent years, there has been renewed realizations that the people who become victim of injury or sudden illness need not only immediate attention but also proper medical care. Thus, it is imperative that first aid training and practice should keep pace with modern medical advancements.

Unfortunately, many human lives are lost or disturbed by disasters and accidents. These stressful life events should be supported by appropriate and timely psychological aid. It is very important that someone is helping in making necessary arrangements, giving practical advice, listening to the grievances, assuaging the feelings and providing physical comfort by being with them. It is also important to educate victims about stress reactions and where to refer to for further help. These tasks do not require a psychologist, but trained first aiders can assist supporting these victims.

For smooth working at a disaster or mass casualty accident site the first aiders need to:

- Have the appropriate knowledge and training in first aid and disaster management.
- Have the capability to think practically and be able to improvise, if required.
- Obtain the full particulars nature of the accident or disaster and the affected site.
- Coordinate with the appropriate governmental authorities.
- Coordinate with other local agencies, other institutions or organizations.
- List the resources (transport capacity, available medical personnel, available first responders and first aiders, stand by medical equipment, available medication supplies, available equipment and disaster relief materials, etc.) he has at his disposal and have an estimate how fast he can mobilize these resources.
- Obtain permission to act from the superior officer on site.
- Survey the site, the situation and the security risks.
- Survey the casualties.
- Allot the priorities for treatment and transport of the casualties.
- Provide the necessary assistance.
- Treat and transport the casualties to the assigned medical facilities.
- Submit a daily report to the concerned authorities and to his organization.
- Submit on completion of the mission a detailed final report to the concerned local authorities as well as his St. John Ambulance Headquarters or to his Red Cross Society along with his observations and suggestions.

Training and exercising helps the first aider to act swiftly, calmly and in the correct way. There is no substitute for proper training!

Having trained first aiders available is a great asset at the time of disasters.

It is again underlined that there is no substitute for proper training. The Red Cross and St John Ambulance organize first aid and disaster management trainings.

N.6 EMERGENCY TRIAGE

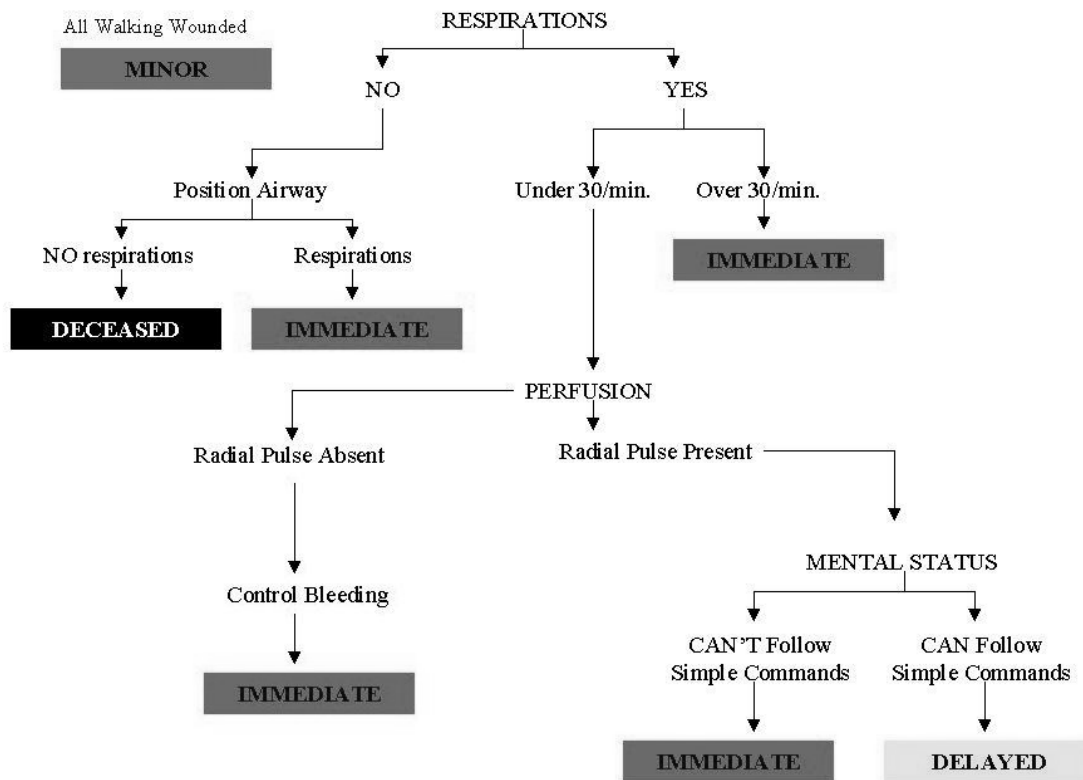
Triage is derived from the French trier, meaning 'to sort or sieve'. In medicine, this is the process of sorting patients in order of priority for treatment and evacuation. Triage may take many different forms, and operates at a number of different levels. However, it aims to give the right patient the right care at the right time in the right place.

In certain circumstances, this may also mean 'doing the most for the most'. Originally developed for use in military conflicts, triage is equally applicable to civilian disasters and in day-to-day emergency settings. Accurate triage allows correct identification of those patients who need the most urgent intervention, as well as quickly and safely identifying those who can wait longer for treatment. The latter are the majority at a typical major incident. Triage may also be used to identify patients who are so severely injured that they will not survive, or whose treatment will tie up resources that would be best used for other patients.

Triage is dynamic – as the patient's condition progresses, so his/her need for intervention alters, and the triage category will change.

The casualties are classified in different categories:

Category →	RED (U1 or I)	YELLOW (U2 or II)	GREEN (U3 or III)	BLACK
Urgency	Extremely urgent.	Fast treatment needed. Constant follow up of breathing and circulation required.	Non urgent treatment.	Deceased.
Injuries	Life-threatening injuries.	Severe. Not immediately life-threatening.	Localised injuries. Non-life-threatening.	Fatal injuries.
Condition	Cardiac arrest. Hypoxia. Shock. Life-threatening bleeding.	Relatively stable condition. Bleeding under control. Breathing.	Walking wounded.	No respiration. No pulse. CPR unsuccessful.
Survival rate	Low if no urgent medical treatment. Better if medical treatment available.	Good when timely medical treatment is provided.	High.	None.
Transport	Immediate transport when stabilized with medical team escort in medically equipped ambulance	Urgent transport (after RED) when stabilized under paramedic observation in equipped ambulance	Non-urgent transport (after RED, YELLOW) by ambulance or any available transport (taxi, car).	Post mortem transport to morgue



Please note:

- There is a fifth category: the non-wounded (sometimes tagged 'BLUE'). They are victims of the incident but seem not to be injured.
- Inside each category, i.e. the categories RED and YELLOW, all casualties of the same are again 'categorized by urgency'. For example, casualties with difficult breathing in category YELLOW will be attended first before patients in the same category with a better condition.
- Triage is a snapshot of the moment the victim has been evaluated. Victims of one category can move in between categories. For example, a patient in category GREEN was walking around, but due to an internal bleeding his condition deteriorates and he becomes a category YELLOW, even RED, depending on his 'new' condition.
- In a mass casualty incident assigning the triage category is done very quickly. The category 'BLACK' (deceased) may be assigned to all casualties that are not breathing without even a CPR attempt (as incident is so massive and there are too many casualties that have to be attended with very limited resources). When more help arrives, and if the situation allows, these victims might be re-evaluated.
- In most mass casualty disasters, a zone for the RED (U1), YELLOW (U2) and GREEN (U3), the deceased (BLACK) and non-wounded (BLUE) will be assigned.
- Always make sure somebody is also observing the casualties in the GREEN zone and the non-wounded (BLUE) as some signs and symptoms of an injury may only show over time.

- Always follow the directives of the medical team on place or of the leader in charge. He assigns people to perform the triage, to assist in the different triage zones, or who will be responsible for managing the transport capacity, etc.