

# **FIRST AID , MEDICAL EMERGENCY SUPPORT,**

## **BIRTH AND DEATH CERTIFICATE ISSUE**

Welcome to the lecture series on Nutrition and Healthcare Sciences. In today's lecture you are going to learn about the First aid, Medical Emergency Support, Birth and Death Certificate issues. By the end of the lecture you will have the understanding of the following.

1. Introduction
2. First Aid.
3. Immediate Medical Support
4. Birth and Death Certificate
5. Summary.

### **1.INTRODUCTION.**

Injuries to the body can occur due to various mechanical, chemical, heat, electrical or environmental reasons. Injuries can occur at workplace, home, schools, roads and any other day-to-day situations. First-aid can be defined as the immediate help given to accident victims till the formal medical care is provided. This help is given by the person who is present near the accident site. First aid, however, does not necessarily require any particular equipment or prior knowledge, and can involve improvisation with materials available at the time, even by untrained people. First aid need to be immediate in severe accidents complicated by bleeding, shock, or heart attack. As the key skill to first aid is preserving life, the single most important training a first aider can receive is in the primary diagnosis and care of an unconscious or unresponsive patient. The first aider is also likely to be trained in dealing with injuries such as cuts or broken bones. He may be able to deal with the situation in its entirety or may be required to keep up the condition of a broken bone, until the next stage that is till he gets ambulance to go to the hospital. First aid is a combination of simple and proactive measures to save the victims life and prevent possible complications. Several conditions which require immediate attention are an inadequate airway, lack of breathing or lack of heartbeat, and excessive loss of blood. A casualty without a clear airway or who is not breathing, may die from lack of oxygen. Excessive loss of blood may lead to shock, and shock can lead to death therefore, you must act immediately to control the loss of blood. All wounds are considered to be contaminated with disease causing microorganisms, since infection producing organisms (germs) are always present on the skin, on clothing, and in the air. Any instrument causing the wound pushes or carries the germs into the wound. Infection results as these organisms multiply in

body the fluids. That a wound is contaminated does not lessen the importance of protecting it from further contamination. You must dress and bandage a wound as soon as possible to prevent further contamination. It is also important that you attend to any airway blocking, breathing, or bleeding problem quickly because these problems may become life-threatening. Once the immediate help is given, ambulance to be called to shift the victim to the casualty section of the nearby hospital for further formal treatment by a qualified medical personnel. In this lecture you will learn about the process of issue of birth and death certificate legally competent to do so for statutory purpose which is required for national record.

## **2. FIRST AID**

A person giving a first aid must know how to find the nature and severity of the injury and when to take urgent step to control disturbances of breathing, to stop the bleeding, bandage the wounds, immobilize the injured part of the body in case of fractures, lift the victim carefully and remove cloths if needed. In case of fall and fractures it is necessary to arrest the bleeding and immobilize the part affected. In all cases when the victim is shifted care must be taken to cause him minimum possible pain and avoid jerking and bumping. A cardiac arrest is the termination of cardiac mechanical activity and it is most often due to ischaemic heart disease. It is advised that non-healthcare professionals are trained to commence first aid in cardiac arrest cases if the victim is unconscious and not breathing normally rather than not breathing at all and has to be shifted to nearby hospital without any delay. In case of burns it is found that cooling of the burns with cold tap water immediately after the injury is sustained and continuing at least until pain is relieved, is the most efficacious approach. Application of ice or ice water should be avoided as sudden change of temperature has adverse effect. Cooling of thermal burns with cold tap water may induce analgesia, cut the need for grafting and promote more rapid healing. The optimal temperature of water used for cooling is between 12-18 degree centigrade and the application should ideally occur without delay and for at least 10 minutes duration.

Wounds and injuries are the most common cases requiring first aid. Accident wounds get contaminated by microorganisms from skin, soil clothing and the objects around. The dead tissues give nutrition to microbes and they can multiply rapidly. Pus formation is most common in wounds if preventive measures are not taken. There are three types of bleeding namely arterial bleeding, venous bleeding and capillary bleeding. Best method of first aid for bleeding is compression of the local part affected.

Arterial bleeding needs tourniquet application on the affected area. Rubber tourniquet is most often used. A tourniquet should not be kept for more than one hour. It should be loosened slowly to restore circulation but ensure that the bleeding is stopped and during this period the victim is shifted to hospital for further treatment. Wounds should not be washed with water. Before a bandage is applied skin around the wound should be disinfected with antiseptics like surgical spirit or tincture of iodine. A sterile bandage is then applied. The bandage should not be applied too tightly so as to block the circulation and it should not be too loose that it can slip. Minor injuries like cuts and scratches should be painted immediately with 5% tincture of iodine and covered with aseptic bandage.

Poisonous snake bites are fatal if immediate first aid is not given. Snake poison has neurotoxin that acts on brain and nerve tissue. Poisons start acting in 30 to 90 minutes after the bite. First aid consists of vigorous sucking of contents of wound for 10 minutes. The person giving first aid should not have any wound or abrasions in his mouth. It can be sucked by breast pump or using rubber bulb. When the venom has been drained out the surface is cleaned by surgical spirit or tincture of iodine. The victim has to be immobilized and shifted to the hospital immediately. If the snake is identified it will be easier for the medical person to give antivenom otherwise he will administer polyvalent antivenom that could be avoidable.

Electrical injuries are caused by the effect of current or lightning. Electrical current produces burns and neurological disturbances. Spasm of diaphragm and heart muscle convulsions can also occur. Immediate aid required is the snapping of current by removing the fuse or switching it off. Immediately artificial respiration to be started and if needed external cardiac massage. When the injured is in the state of taking liquid then he should be given water, applied bandage in the burn area, placed on the stretcher and shifted to nearest hospital. Sunstroke and heat stroke are other emergencies in summer months. Heat stroke is a medical emergency. Even with immediate treatment, it can be life-threatening or result in serious, long-term complications. Move the person into a cool place, out of direct sunlight. Remove the person's unnecessary clothing, and place the person on his or her side to expose as much skin surface to the air as possible. Cool the person's entire body by sponging or spraying cold water, and fan the person to help lower the person's body temperature. Do not give aspirin to reduce a high body temperature that can occur with heat stroke. These medicines may cause problems because of the body's response to heat stroke. If the person is awake and alert enough to swallow, give the person oral rehydration solution for hydration. Most people with heat stroke have an altered physiological condition and cannot safely be given fluids to drink. You may have to help. Make sure the person is sitting up enough so that he or she

does not choke due to liquid given to him. If the respiration is affected artificial respiration should be provided. It is a method to restore normal breathing. Then the victim could be observed continuously till regular medical care is given. Common method of artificial respiration is the mouth to mouth respiration.

Cardiac massage is carried in variety of situations like cardiac arrest, sunstroke, electrical shock and shock in general. It consists of rhythmical compression of the chest to expel blood in to blood vessels from heart and restores blood flow. Drowning is most common in children. Young kids are especially at risk because they're curious, fast, and attracted to water but are not yet be able to understand how dangerous it is. The good news is that a few safety precautions can prevent most drownings. If the child is the victim of a near-drowning, this fast-action rescue plan can prevent a tragedy. The first priority is to get a drowning child out of the water as quickly as possible. If she isn't breathing, place her on her back on a firm surface. Immediately begin rescue breathing, and call someone for help. Don't assume it's too late to save a child's life -- even if she is unresponsive, continue performing artificial respiration and shift the child to hospital immediately with out delay..

### **3. IMMEDIATE MEDICAL SUPPORT.**

India is fighting to strengthen its health care delivery system, and emergency ambulance services still remains the most neglected part of India's healthcare service system. The importance of pre-hospital care is especially important in the rural areas where immediate health care is poor and services are available at distant places. Most people in India succumb to death due to non-availability of quick and good quality emergency medical support. Road accident is the major cause of death in India. There are private emergency ambulance services and the government funded ambulance services which is given free to rural population. Now the rural population has confidence and trust to use 108 ambulance services during medical emergencies as shown by the increased utilisation of and the satisfaction with the services. However government shall consider providing a continuous effective system of emergency medical care more effectively. In India hospital births are a challenge for villagers. Many deliver at home or in a vehicle while on their way to the hospital. This may give rise to the high maternity and infant mortality rates. Therefore, the need for an organized emergency medical support system in India is important. The gap formed by only a few government-sponsored ambulances is filled with ambulances owned by private hospitals. These ambulances, though well equipped, are very costly to the patient, and thus, beyond the reach of many in a country where 81% of the population lives on less than

Rs.200 a day. Current system of Dial 108 is a free ambulance service provided in public-private partnership with respective state governments for medical, police, and fire emergencies. Dial 1298 is similar to 108 in its working aspects; the only difference is that 1298 is a paid service while 108 is free. A toll-free 108/1298 call is received by a communications officer who collects and records all facts regarding the emergency. The information is then transferred to the dispatch officer who identifies the closest Global Positioning System-enabled ambulance to the scene of emergency and gives instructions for dispatch of the ambulance. Medical emergencies such as fracture, fever, and syncope are responded to by Basic Life Support ambulances; emergencies such as cardiac arrest, seizures, snake bite, unconsciousness, burns, and pregnancy-related emergencies are usually managed by an Advanced Life Support ambulance. Emergency medical Services in India is still in its infancy and is very fragmented. An organized system can play an important role in saving lives when treatable conditions are involved. The importance of coordinated participation of agencies involved, government, police and fire departments, private hospitals, and the community is stressed, with a hope of increased benefit to public.

#### **4. BIRTH AND DEATH CERTIFICATE.**

A Birth Certificate is the most important identity document that makes it possible for anyone in possession of it to benefit from a gamut of services offered by the Indian Government to its citizens. It becomes necessary to obtain a Birth Certificate because it serves to establish the date and fact of one's birth for a whole range of purposes, like acquiring the right to vote, admission to schools , getting into the Government Service, claiming the right to marry at the legally permissible age, settlement of inheritance, property right and obtaining Government-issued identity documents like a driving licence , passport etc.

The Government accordingly has provided for a well-defined system for registration of birth, with the Registrar General at the centre and the Chief Registrars in the States, running through district registrars to the village and town registrars at the periphery. To apply for a Birth Certificate, you must first register the birth. The birth has to be registered with the concerned local authorities within 21 days of its occurrence, by filling up the form prescribed by the Registrar. Birth Certificate is then issued after verification with the actual records of the concerned hospital. In case the birth has not been registered within the specified time of its occurrence, the certificate is issued after due police verification ordered by the revenue authorities.

A Death Certificate is a document issued by the Government to the nearest relatives of the deceased, stating the date, fact and cause of death. It is essential to register death to prove the time and date of death, to establish the fact of death for relieving the individual from social, legal and official obligations, to enable settlement of property inheritance, and to authorise the family to collect insurance and other benefits. A death can be reported and registered by the head of the family, in case it occurs in a house; by the medical in-charge if it occurs in a hospital; by the jail in-charge if it occurs in a jail; and by the headman of the village or the in-charge of the local police station in case the body is found deserted in that area. To apply for a Death Certificate, you must first register the death. The death has to be registered with the concerned local authorities within 21 days of its occurrence, by filling up the form prescribed by the Registrar. Death Certificate is then issued after proper verification.

If a death is not registered within 21 days of its occurrence, permission from the Registrar/Area Magistrate, has to be obtained along with the fee prescribed in case of late registration. The application form in which you are required to apply is usually available with the area's local body authorities, or with the Registrar who maintains the Register of Deaths. You might also need to submit proof of death of the deceased, an affidavit specifying the date and time of death, a copy of the ration card, and the required fee in the form of court fee stamps. There is a centralised record of all the births and deaths. Now it is being linked with Adhaar card to get error free record.

## **5. SUMMARY**

First-aid is the immediate help given to accident victims till the formal medical care is provided. This help is given by the person who is present near the accident site. First aid, however, does not necessarily require any particular equipment or prior knowledge, and can involve improvisation with materials available at the time, often by untrained individual. First aid is required for victims of accident, drowning, electric shock, cardiac arrest, snake bite and several other life threatening conditions. Generally procedures involved are bandaging, cardiac massage, artificial respiration, application of antiseptics, application of tourniquet etc. Most people in India succumb to death due to non-availability of quick and good quality emergency medical support. Road accident is the major cause of death in India. There are private emergency ambulance services and the government funded ambulance services which is given free to rural population. Now the rural population has confidence and trust to use 108 ambulance services during medical emergencies as shown by the increased utilisation of the service. Registration of birth is mandatory in India as per law in force. This gives variety of benefits acquiring the right to vote, admission to schools and getting in to the

Government Service, claiming the right to marry at the legally permissible age, settlement of inheritance, property right and obtaining Government issued identity documents like a driving licence or passport. Same is the case for death which has to be registered within 21 days. It is essential for inheritance of property, pension, getting bank balance etc.

Thank you