Pocket guide on first aid for Disaster Management

Introduction

"First aid is the provision of initial care for an illness or injury. It is usually performed by a lay person to a sick or injured patient until definitive medical treatment can be accessed. Certain self-limiting illnesses or minor injuries may not require further medical care past the first aid intervention. It generally consists of a series of simple and, in some cases, potentially life-saving techniques that an individual can be trained to perform with minimal equipment."

What is the aim of First Aid ?

The key aims of first aid can be summarised in three key points

Preserve life is the overriding aim of all medical care, including first aid, is to save lives

Prevent further harm also sometimes called preventing the condition worsening, this covers both external factors, such as moving a patient away from a cause of harm, and applying first aid techniques to prevent worsening of the condition, such as applying pressure to stop a bleed becoming dangerous.

Promote recovery - first aid also involves trying to start the recovery process from the illness or injury, and in some cases might involve completing a treatment, such as in the case of applying a plaster to a small wound.

First aid training often also incorporates the prevention of initial injury and responder safety, as well as the treatment phases.

What are the Key Skills Required?

Certain skills are considered essential to the provision of first aid and are taught ubiquitously. Particularly, the "ABC"s of first aid, which focus on critical life-saving intervention, must be rendered before treatment of less serious injuries. ABC stands for Airway, Breathing, and Circulation. The same mnemonic is used

by all emergency health professionals. Attention must first be brought to the airway to ensure it is clear. Obstruction (choking) is a life-threatening emergency. Following evaluation of the airway, a first aid attendant would determine adequacy of breathing and provide rescue breathing if necessary. Assessment of circulation is now not usually carried out for patients who are not breathing, with first aiders now trained to go straight to chest compressions (and thus providing artificial circulation) but pulse checks may be done on less serious patients.

Some organizations add a fourth step of "D" for Deadly bleeding or Defibrillation, while others consider this as part of the Circulation step. Variations on techniques to evaluate and maintain the ABCs depend on the skill level of the first aider. Once the ABCs are secured, first aiders can begin additional treatments, as required. Some organizations teach the same order of priority using the "3 Bs": Breathing, Bleeding, and Bones. While the ABCs and 3Bs are taught to be performed sequentially, certain conditions may require the consideration of two steps simultaneously. This includes the provision of both artificial respiration and chest compressions to someone who is not breathing and has no pulse, and the consideration of cervical spine injuries when ensuring an open airway.

Preserving life

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 most common mnemonic used to remember the procedure for this is ABC, which stands for Airway,

Breathing and Circulation.

In order to preserve life, all persons require to have an open airway - a clear passage where air can move in through the mouth or nose through the pharynx and down in to the lungs, without obstruction. Conscious people will maintain their own airway automatically, but those who are unconscious (with a GCS of less than 8) may be unable to maintain a patent airway, as the part of the brain which autonomously controls in normal situations may not be functioning.
If an unconscious patient is lying on his or her back, the tongue may fall backward, obstructing the oropharynx (sometimes incorrectly called "swallowing" the tongue). This can be easily rectified by a first aider tipping the head backwards, which mechanically lifts the tongue clear.
If the patient was breathing, a first aider would normally then place them in the recovery position, with the patient leant over on their side, which also has the effect of clearing the tongue from the pharynx. It also avoids a common cause of death in unconscious patients, which is choking on regurgitated stomach contents.
The airway can also become blocked through a foreign object becoming lodged in the pharynx or larynx, commonly called choking. The first aider will be taught

to deal with this through a combination of 'back slaps' and 'abdominal thrusts'. Once the airway has been opened, the first aider would assess to see if the patient is breathing. If there is no breathing, or the patient is not breathing normally, such as agonal breathing, the first aider would undertake what is probably the most recognized first aid procedure - Cardiopulmonary resuscitation or CPR, which involves breathing for the patient, and manually massaging the heart to promote blood flow around the body.

Promoting recovery

The first aider is also likely to be trained in dealing with injuries such as cuts, grazes or broken bones. They may be able to deal with the situation in its entirety (a small adhesive bandage on a paper cut), or may be required to maintain the condition of something like a broken bone, until the next stage of definitive care (usually an ambulance) arrives.

When First Aid is Required ?

Altitude sickness, which can begin in susceptible people at altitudes as low as 5,000 feet, can cause potentially fatal swelling of the brain or lungs.

Anaphylaxis, a life-threatening condition in which the airway can become constricted and the patient may go into shock. The reaction can be caused by a systemic allergic reaction to allergens such as insect bites or peanuts. Anaphylaxis is initially treated with injection of epinephrine.

Battlefield First aid - This protocol refers to treating shrapnel, gunshot wounds, burns, bone fractures, etc. as seen either in the 'traditional' battlefield setting or in an area subject to damage by large scale weaponry, such as a bomb blast or other terrorist activity.

Bone fracture, a break in a bone initially treated by stabilizing the fracture with a splint.

Burns, can result in damage to tissues and loss of body fluids through the burn site.

Choking, blockage of the airway which can quickly result in death due to lack of oxygen if the patient's trachea is not cleared, for example by the Heimlich Maneuver.

Childbirth.

Cramps in muscles due to lactic acid build up caused either by inadequate oxygenation of muscle or lack of water or salt.

Joint dislocation.

Diving disorders resulting from too much pressure. Near drowning or asphyxiation.

Gastrointestinal bleeding. Gender-specific conditions, such as dysmenorrhea and testicular torsion. Heart attack, or inadequate blood flow to the blood vessels supplying the heart muscle.

Heat stroke, also known as sunstroke or hyperthermia, which tends to occur during heavy exercise in high humidity, or with inadequate water, though it may occur spontaneously in some chronically ill persons. Sunstroke, especially when the victim has been unconscious, often causes major damage to body systems such as brain, kidney, liver, gastric tract. Unconsciousness for more than two hours usually leads to permanent disability. Emergency treatment involves rapid cooling of the patient.

Heat syncope, another stage in the same process as heat stroke, occurs under similar conditions as heat stroke and is not distinguished from the latter by some authorities.

Heavy bleeding, treated by applying pressure (manually and later with a pressure bandage) to the wound site and elevating the limb if possible.

Hyperglycemia, or diabetic coma.

Hypoglycemia, or insulin shock.

Hypothermia, or Exposure, occurs when a person's core body temperature falls below 33.7°C (92.6°F). First aid for a mildly hypothermic patient includes rewarming, but rewarming a severely hypothermic person could result in a fatal arrhythmia, an irregular heart rhythm.

Insect and animal bites and stings.

Muscle strain.

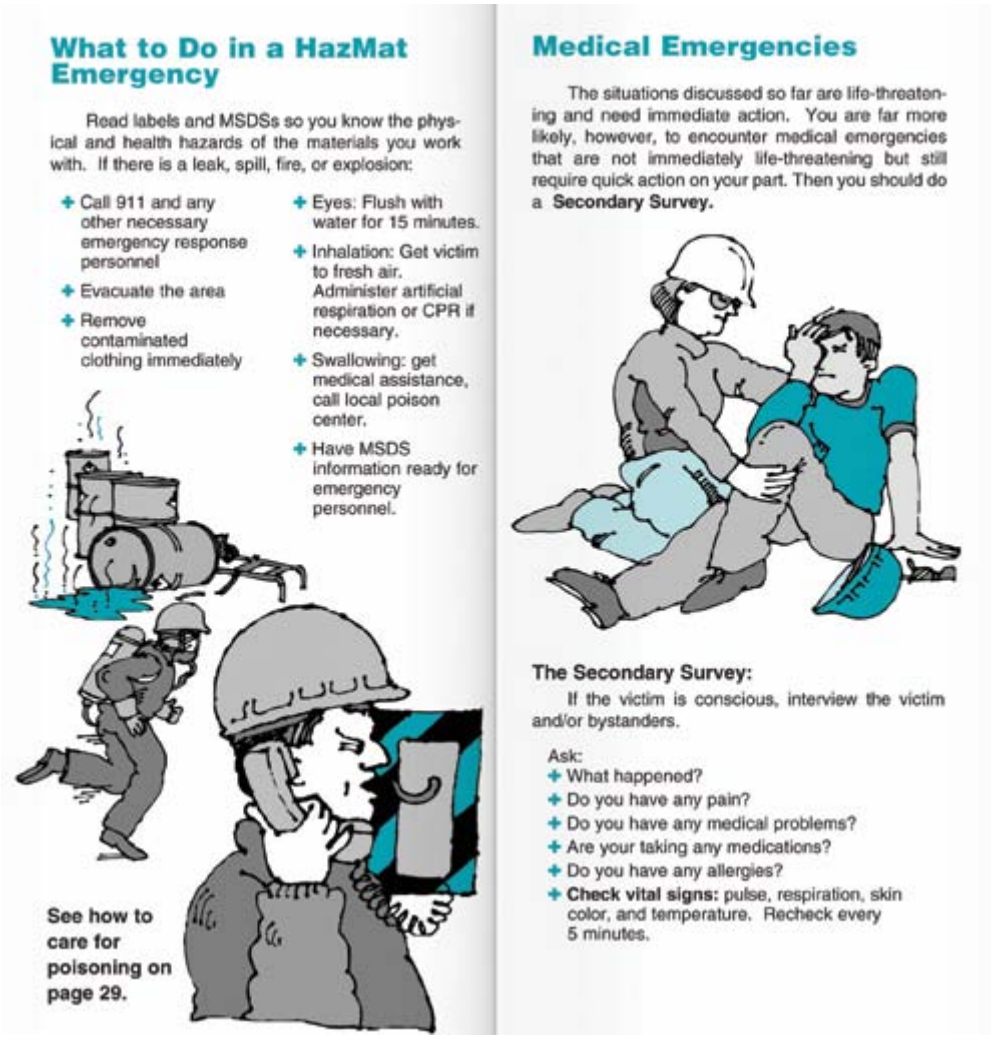
Poisoning, which can occur by injection, inhalation, absorption, or ingestion.

Seizures, or a malfunction in the electrical activity in the brain. Three types of seizures include a grand mal (which usually features convulsions as well as temporary respiratory abnormalities, change in skin complexion, etc) and petit mal (which usually features twitching, rapid blinking, and/or fidgeting as well as altered consciousness and temporary respiratory abnormalities). Sprain, a temporary dislocation of a joint that immediately reduces automatically but may result in ligament damage. Stroke, a temporary loss of blood supply to the brain.

Sucking chest wound, a life threatening hole in the chest which can cause the chest cavity to fill with air and prevent the lung from filling, treated by covering with an occlusive dressing to let air out but not in.

Toothache, which can result in severe pain and loss of the tooth but is rarely life threatening, unless over time the infection spreads into the bone of the jaw and starts osteomyelitis.

Wounds and bleeding, including laceration, incision and abrasion, and avulsion.



What to Do in a HazMat Emergency

Read labels and MSDSs so you know the physical and health hazards of the materials you work with. If there is a leak, spill, fire, or explosion:

- Call 911 and any other necessary emergency response personnel
- Evacuate the area
- Remove contaminated clothing immediately
- Eyes: Flush with water for 15 minutes.
- Inhalation: Get victim to fresh air. Administer artificial respiration or CPR if necessary.
- Swallowing: get medical assistance, call local poison center.
- Have MSDS information ready for emergency personnel.

See how to care for poisoning on page 29.

Medical Emergencies

The situations discussed so far are life-threatening and need immediate action. You are far more likely, however, to encounter medical emergencies that are not immediately life-threatening but still require quick action on your part. Then you should do a **Secondary Survey.**

The Secondary Survey:

If the victim is conscious, interview the victim and/or bystanders.

Ask:

- What happened?
- Do you have any pain?
- Do you have any medical problems?
- Are your taking any medications?
- Do you have any allergies?
- **Check vital signs:** pulse, respiration, skin color, and temperature. Recheck every 5 minutes.

Pocket First Aid & CPR Guide

Be prepared 24/7 for a medical emergency.

Whether you're at home, on the road, or in the woods, Jive Media's Pocket First Aid & CPR Guide is at your fingertips with concise, clear instructions to care for you and your loved ones.

Dozens of articles, including CPR, the Heimlich Maneuver, bites, bruises, burns, seizures, diabetic emergencies, and many more. All articles are stored on your iPhone, so you can provide first aid even when out of cell phone range.

Enter your medical information on the My Info tab. Save your doctor's contact information along with your hospital, emergency contacts, allergies, and medications. You can also save your insurance information for quick access.

First aid can and does save lives. Be as prepared as possible!

Features:

- Articles are grouped by category for quick access
- First aid instructions are available even when out of cell-phone range.
- Perfect for wilderness outings.
- Linked articles, for quick access
- First aid kit information
- Save you medical information for quick retrieval. Look up your doctor or emergency contacts with a single click.
- Store your insurance information in an easy-to-access location.

You surely got a paper guiding you to the other projects of which one of them was first aid guide no? if not then here it is

Prepare a pocket guide on First Aid for your school. The First Aid pocket guide should contain aid that needs to be given for fractures, poisoning, cuts and burns, heat and cold wave and other threats that are prevalent in that area. The content shared in the guide should be supported with adequate pictures so as to give a clear and elaborate understanding about the topic. Choose awareness campaign strategy for either senior citizens or illiterate people and prepare a brief write-up. (Note for the Teachers: The project can be carried out by a group of students in a class and work can be equally divided amongst the students so that the teachers are able to evaluate them easily. Doctors, local health practitioners, trained volunteers of Red Cross and professionals from other agencies/bodies/institutes, proficient in this field can be consulted to prepare the first-aid pocket guide. This guide can be printed by the school administration and shared with all the students, teachers and other staff members of the school. It can be used as a ready reckoner for any First Aid related information.