NOTES OF GENERAL INTEREST TO ALL HAMNET MEMBERS THESE NOTES WERE PREPRED BY KEITH LOWES ZS 5 WFD

As Hamnet members, we may on occasions find ourselves in a situation where basic information may be useful regarding motor vehicles accidents, items of general interest regarding first aid and so on.

Keith Lowes ZS5WFD, has over the past few weeks been eluding on these subjects by way of Wednesday evening talks to KZN Hamnet members. These notes have been forwarded to me and herewith a summary of what was discussed.

A STROKE

A stroke takes place when blood suddenly stops flowing to the brain or when there is a bust blood vessel. How much and which parts of the body are effected depends on the damage done.

Signs of some one having a stroke can be confused with drunkenness due to the slurred speech and unsteadiness.

Symptoms

Sudden severe headache/ full bounding pulse/disoriented and confused/anguish and weeping/giddiness.

Physical signs

paralysis of the mouth/the corner of the mouth droops to one side/saliva exists from that side of the mouth/speech slurred/weakness in one or both limbs on one side of the body/flushed/dry skin/loss of bladder and bowel control.The eyes may be unequally dilated.

Very little can be done by the first aid person apart from making the patient comfortable and being supportive.
Unconsciousness often occurs so the person must be placed in the recovery position with the head and shoulders slightly raised and supported and the head turned to the side of the paralysis to drain away the saliva to prevent the person from choking.

Loosen any constricting clothing around the neck chest and waist. Do not give them anything to drink but only moisten the lips with a damp cloth. Remove any false teeth and always check for things such as a medic alert bracelet which will give some history of the patient. Pass this and any other information onto the paramedics on their arrival.

By knowing what to do in the above situation you may have saved a life.

BASIC FIRST AID

The person administrating first aid must act quickly, calmly and clearly when coming upon and accident involving injuries.
Make a quick assessment of the injuries to make a correct diagnosis.
Approach - Do not place yourself in danger, state that you are a first aid person and take charge of the incident until profession help arrives.

Safety

If you have come across a road accident park your vehicle in the 'fend off' position. Do not leave anyone in your vehicle (wife children etc) make them go to a safe place. Get a bystander to assist with traffic control to minimize injury to yourself. Disconnect the battery of the vehicle to minimize the risk of fire. (always carry a shifting spanner. 10mm and 13mm spanners and screw driver in your vehicle for this purpose)

Do not drag the patient out of the vehicle unless there is an imminent risk of more serious injury or death. By removing the patient from the vehicle may result in further serious injury.

Keep the on lookers occupied with traffic control, and in the treatment of the patient/s. This will stop them from interfering. Remember the 'Golden Hour' philosophy for any serious trauma.

Priorities

Breathing - Is the patient breathing? Has he stopped breathing but there is still a heartbeat. If the heart has stopped use CPR but if there is still a heart beat evident use artificial ventilation.
Bleeding - control severe bleeding, if not the person will go into shock
Unconscious - If the person is unconscious place them in the recovery position, if you don't, they may choke.
Check for level of response, and keep checking at regular intervals. This will give an indication if the patient is stable or getting worse.
Do not move a person who has suffered spinal injury unless they have stopped breathing.

Keep the patient quiet/warm/lying down to reduce shock. Do not give them anything to eat or drink. They might need surgery.
Treat all fractures and large wounds. If they have suffered multiply injuries, treat the most serious first (stop the flow of blood before attending to a fracture)
In a case of multiple injured, decide by rapid assessment who needs priority treatment.
When the paramedics arrive explain to them in detail the history of the patient/s and the action taken by you.

<u>BURNS AND SCALDS</u>

Scalds are usually caused by wet heat. Most burns will need medical attention as there is always a risk of infection. The loss of serum can lead to shock.

Dry fiction burns are cause by a fast moving objects like a rope.
Cold burns are caused by liquid oxygen or nitrogen.
Chemicals such as caustic soda can also cause Burns.
Electrical burns from an electrical source or a lightning strike.
Radiation burns which are caused by excessive exposure to the sun or snow. This can affect the eyes and skin. Burns are also caused by the exposure of the eyes and skin when welding.

Classification.

There are three levels of burns. Superficial - First degree, Intermediate - Second degree, and Full depth - Third degree

It is often difficult to distinguish these levels in the early stages.

Level 1 (first degree) burns on the outer layer of the skin, which cause redness, swelling and tenderness.
Level 2 (second degree) formation of blisters and is swollen and red, causes infection and will need medical attention.
Level 3 (third degree) all the layers of the skin are pale and waxy and look chard. These always require medical attention.
Here one can apply what is called "The Rule of Nine"
Head - 9%
Chest - 9%
Upper back - 9%
Arm - 9%
Abdomen and lower back - 9%
Thigh - 9%
Lower leg - 9%

What this means is that if a person is burnt on the chest, upper back and abdomen they have suffered 27% burns and immediate hospital treatment is required.

Blisters: A bubble is formed on the skin when serum leaks into the burnt area. A blister should not be popped where possible as the serum protects the new skin and is then re-absorbed by the body. Apply a large dressing over the blister.

Clothing on Fire: This can happen when one stands too close to an open fire. It causes widespread and severe burning and shock. Calm the person down because if the patient inhales the hot fumes/flames it can cause further injury.
Here one must use the STOP-DROP & ROLL method. even if it means tripping the patient. Lie then on a blanket or thick coat, not on the bare floor as this can results in further infection. Cool them down with water. use a swimming pool if near by. Support the patient in the water. Do not use nylon clothing to smother the flames; it will stick to the person.

Dry burns and Scalding: These are the main causes of accidental death. Flood the burnt area with cold water (a gentle flow and not high pressure) Remove the clothing when cooled. Loosen tight clothing and remove belts, rings and watches as these may become difficult to remove when the swelling set in. Do not try to remove clothing that has stuck to the patient.
With small burns on an infant or elderly person one must always seek medical help, they could become dehydrated and go into shock.

General symptoms

Severe pain with superficial burns. With a deep burn there is numbness and redness, or grey charred and peeling skin. The degree of shock indicates the degree of the burn.
The patient might have to be put on a drip using plasma to counteract the serum loss. Always reassure the patient.

With minor burns place the effected area under slow cold running water or if none is to hand use milk or beer. A Medishield burn dressing should be applied if available. These are sterile and contain a special gel. (Paraffin gauze dressings are also still available and either one of these two or both should be kept in the home). If these dressings are not available, dress with a sterile non-fluffy material. Do NOT apply any type of greasy ointment, butter or fat. These make it

very difficult for the hospital staff to clean that could cause further injury to the person.

With severe burns always try to calm the person down and if necessary use the STOP/DROP/ROLL method to stop them from further injuring themselves. Loosen all tight clothes and remove watches and rings. Remove clothes only after they have cooled. Do not try to pull off clothes that are sticking to the skin. If the head has been burnt make a facial mask from a clean dry sterile material like a pillowcase. Cut holes in for the mouth and eyes. Give them sips of cold water at frequent intervals to replace lost fluids and monitor them regular until the Paramedics arrive.

Mouth and Throat: this can be caused by drinking very hot liquid or by chemicals. The throat swells rapidly and the patient must be prevented from panicking. Sips of cold water can be given at regular intervals and monitor their condition until professional help arrives.

FIRE EXTINQUISHERS

Dry power type extinguishers work very well but have to be used correctly. The powder smothers the fire but does not cool it.

CO2 smothers the flames by starving it of oxygen, but in an open space this is more difficult because the fire is able to breath easier.

Foam blankets the fire and also cools it down.

When fuel is leaking from a vessel/tanker onto the road and water is used the water must be used to sweep the flames away. Remember that the material is very hot and if not cooled sufficiently can cause the fire to re-ignite.

Sand can also be used to smother the flames, especially fuel.

A new safety feature that is now being fitted to vehides is an impact cut-out switch. This cuts all power to the electrical system of the vehicle and minimizes the threat of fire, especially when fuel lines have been ruptured.

Where possible when coming upon an accident, make every effort to disconnect the battery or at least turn the ignition off. This act might very well save the life of someone trapped in the vehicle.

Keith informed us that it is compulsory for all vehicles in Belgium to be fitted with fire extinguishes and first aid kits. These items are checked by the police on a regular basis and if found to be faulty or inadequate the motorist is fined.

Tonight's talk by Keith ZS5WFD was on First Aid Techniques with regards to the procedures used at a major incident or multiple MVA.

No two incidents will be the same. Each will be different and will have to be handled accordingly.

Major incidents.
A quick reconnaissance of the scene will need to be made and the number and types of injuries ascertained and this information must be passed on to the authorities in order to minimize delays and the response of the various services.

To treat those injured on site whilst waiting the arrival if the paramedics etc.

Remove the danger from the casualty and not the casualty from the danger unless absolutely necessary. (eg if the vehicle is alight) If they have to be removed then careful consideration must be paid to the removal and support of the patient. They might have suffered spinal, neck or internal injuries.

Turn off the ignition or disconnect the battery to minimize the risk of fire. Put the vehicle in gear and apply the hand brake.

If goods-carrying vehicles have been involved, look for hazardous or leaking chemicals. Stop bystanders from smoking near leaking fluids as this could ignite any petrol or inflammable liquids leaking onto the roadway.

Most importantly if the accident has taken place on a freeway where the vehicles will be travelling at high speed, get someone to stand a few hundred metres from the accident to warn approaching traffic.

Make a careful search of the interior of the vehicle as small children might have been trapped under seats or blankets or luggage etc.

Check the surrounding area for any injured persons who might have been thrown out of the moving vehicle.

Do not transport the injured in your vehicle rather wait for the ambulances to arrive. You might cause the death of an injured person and leave yourself open to litigation.

If a motorcyclist is involved it is better to leave his helmet on unless he is unable to breathe or is vomiting. If you have to do so, do it very gently and get someone to help by supporting the neck of injured party and remove it with a slow continuous movement and not by jerking it off.

If a person is trapped in the vehicle it is usual that a first aid person gets into the vehicle to assist with the stabilizing of the patient until professional help arrives.

And remember your safety at the scene of the accident is paramount. You are of no use to the patient if you are also injured.

<u>WOUNDS AND BLEEDING</u>

Types and categories.

Severe blood loss which could lead to major damage of the organs
Abnormal break in the skin and tissue which allows blood to escape.
The heart is a sump pump and needs continuous blood flow to operate efficiently

Categories
Open or closed wounds
Open wounds are those that allow blood to escape. Can be referred to as Contused, Lacerated, Incised, Puncture, Gunshot and Graze.

Contused
A fall or a blow from a blunt instrument which could result in a fracture and considerable bruising and lead to blood in the tissue.

Lacerated
Skin torn irregularly from an injury such as barbed wire etc. Bleeds less severely. The torn blood vessels constrict and blood congeals quickly.

Incised
Injury from a knife or razor or other shape instrument. This wound bleeds profusely. Clean cut blood vessels do not seal congeal/clot quickly.

Puncture
Nail, needle, garden fork or impaled. This wound is usually deep and the risk of infection is high. Internal organs can be severely damaged.

Gunshot
This type of wound is very serious and often causes damage to internal organs, tissue and bone. Can leads to severe internal bleeding. There is not always an exit wound as the bullets path might have been deflected and cause further damage

Graze
Often from a sliding fall (roastie). Dirt or grit is often imbedded in the wound and can cause infection. Friction burns can be treated as grazes.

Types of Bleeding
There are three types. Arterial, Venus and capillary.

Major arteries are the most serious but a wound could have all three or a combination of them.
Arterial blood is fully oxygenated and is bright red as it has just come from the heart and is under pressure. The blood often spurts out of the wound in time with the heart beats.

Venus blood is a darker red and is of lower pressure and does not spurt out but could gush profusely.

Capillary
This is the most common type of wound and the blood oozes from the wound.

Arterial.
Your main concern must be the loss of fluid and shock. Apply a dressing to stop the flow of blood. If the wound continues to bleed, add additional bandages and use direct pressure. If you are unable to use direct pressure then use what is called indirect pressure whereby one finds a place further back from the injury and compresses an artery or vein close to the bone, like in the area of a joint. Do NOT use a tourniquet. This method is now not used as it cuts the blood flow off completely and has in the past caused amputation of limbs. Do not use indirect pressure for more than 15 minutes at a time.

Body response

The body itself will restrict the blood to minimize blood loss and the blood vessels will constrict and slow down the blood flow. The blood solidifies to form a clot to plug the blood to seal the wound.
The body starts to repair itself immediately.

Major external bleeding, how to treat it.
The bleeding is dramatic and might distract you from a more serious injury. Always remember the ABC. Airway, Breathing, Circulation. Treat the wound as soon as possible. It may be only possible to reduce rather than stop the bleeding. First use direct pressure then if necessary indirect pressure as explained earlier. Place the casualty in such a position to minimize blood to the injured area, eg raising the legs to pool the blood in the body.

Sign and Symptoms.

Thirst, blurred vision, fainting or giddiness, or may become pale in the face and lips. The skin will be cold and clammy. The pulse is fast but weak. The casualty may become restless and talkative. The breathing may become shallow and he/she may lapse into unconsciousness.

Keep the wound clean.
Expose the wound by cutting away clothing. Always use gloves. Apply direct pressure with the fingers or hand. Squeeze the wound together (incised type) to help with clotting. Lie the casualty down. If necessary apply indirect pressure to the limb (remember no longer than 15 minutes at a time). Use an unmedicated dressing and secure with a bandage, but not so tight as to restrict the blood flow completely. Trauma dressings come in various sizes and are made up of a sterile dressing and a bandage. Improvise if no suitable dressings are available. If bleeding continues, add further dressings.

Foreign body.

Remove small foreign bodies such as glass or grit and wipe off or rinse in cold water.
Large foreign bodies must NEVER be removed at the scene but left for the hospital to remove. This foreign body might be acting as plug for the wound or a seal inside the body. Gently place the gauze around the foreign body (such as a knife) using the doughnut method. Secure with a bandage which does not press down on the foreign body (knife handle). If bleeding persists use indirect pressure.
If the casualty has been impaled NEVER lift off. The emergency services will cut the stake/railing off each side of the casualty and they will remove the patient to a hospital for surgical removal.

Amputations.

It is now possible in many cases to re-connect an amputated limb/finger/hand etc. The sooner the patient and the severed part is taken to hospital the greater the chance of success. It is very important to note that the severed part must NOT placed directly onto ice as this can damage the tissue. Put the severed part in a clean packet then cool with ice. Control the blood flow at the wound by using direct or indirect pressure. Make a note of the time that the casualty lost the limb. This can greatly assist the doctors in re-attaching the severed part.