Sussex Wing

Air Training Corps





Heart Start First Aid Training

Lesson Plans

Flt Lt Ridley 05/01/2010

Release 1

**Teaching CPR, ELS and Course Timetable.**

ELS training, and in particular CPR training involves skills that are predominantly

practical so it is essential to optimise the opportunity for trainees to practise these

skills.

In order that your trainees gain the maximum benefit from attending the

course, your instructors should:

• keep the message very simple

• not use complicated terms and jargon

• ensure maximum time for 'hands on' practice, particularly for the CPR and

 recovery position sequences in stage one

• have a maximum of six trainees to one instructor

• provide at least one resuscitation training manikin per two trainees

• encourage trainees at all times and attempt to instil confidence so that if

 required they are willing and able to use the skills they have learnt

• encourage refresher training

• be aware of their own limitations when answering queries and refer trainees

 on to other sources of information as appropriate

• teach only the core elements of the Heartstart UK course

• provide supporting information for attendees to read (differences in choking

 and resuscitation techniques in children)

In addition to the core elements, the Heartstart UK course includes an optional

element. This is so instructors can provide information on Automated External

Defibrillators (AEDs) and community responders.

Instructors may also be able to provide contact details of local people involved in community responding. Where possible, instructors may also provide information on other heart health matters and the work of the BHF.

The use of the Heartstart UK video/DVD 'Buying Time' is strongly recommended.

See the section on course delivery for how instructors can utilise the video/DVD.

**Trainees with a disability**

Trainees who are unable to practise ELS due to health problems, injury, and

disability, or are in any way reluctant to practise can still playa valuable and active

role in the course.

When it is time to practise the skill, the trainee can talk an instructor or other trainee through the skill or procedure, and the instructor can correct any errors. These trainees should still receive a certificate of attendance, and should be advised that they can still play an essential role in a real emergency as they could talk another rescuer through the skills or procedure.

|  |  |  |
| --- | --- | --- |
| **STAGE ONE** | **Time** | **Content** |
| 10 minutes | **Introduction*** Aims of the Course
* The Chain of Survival
 |
| 10 minutes | **Priorities / The Conscious Casualty*** Checking for Danger
* Checking for a Response
* Making a 999 call
 |
| 25 minutes | **The Unconscious Casualty*** Shouting for help
* Opening the airway
* Checking for Normal Breathing
* Recovery Position
* Getting Help
 |
| 40 minutes | **Cardiac Arrest*** Checking for Normal Breathing
* Chest Compressions
* Rescue Breathing
* CPR
 |
| **STAGE TWO** | 10 minutes | **Suspected Heart Attack*** Warning Signs
* Dealing with a Suspected Heart Attack
 |
| 10 minutes | **Choking in Adults*** Recognition of choking
* Back Blows
* Abdominal Thrusts
* Differences in Children and Adults
 |
| 10 minutes | **Serious Bleeding*** Dealing with bleeding
* Pressure and Elevation
 |
| 5 minutes | **Summary*** General Summary of Course / Certificates
* Reporting Skills Used
 |
|  | Optional | Further Training Options |

**Course Delivery**

The standard two hour Heartstart UK course is divided into two stages.

**All elements in the course must be covered**.

This approach is intended to allow Heartstart UK schemes the necessary flexibility required to deliver the course using a variety of teaching methods, which may be necessary where there is time constraints, e.g. when the course is delivered as part of a cardiac rehabilitation programme.

**Stage One**

The recommended time for stage one is a minimum of 85 minutes and consists of practical

skills that are best learned using a 'hands on' approach, e.g. the recovery position and

performing CPR.

There should be maximum hands on practice. Instructors should use the 'Buying Time' video/DVD to support their training and consider the four staged approach to teaching.

**Stage Two**

Alterative delivery methods may be considered for stage two. Some of these are outlined

below.

If elements of stage two are delivered using the practical 'hands on' approach the

recommended minimum time is 35 minutes. However, elements in stage two can be

delivered using a variety of teaching methods. This will depend on a number of factors

including time constraints or where you are delivering the course over a number of units,

e.g. for adults with learning difficulties.

The Wing FAI will be able to advise you.

**Methods of delivery for stage Two**

• Conventional 'hands on' training

• Video/DVD led instruction with questions and answers

• Demonstration and discussion

• Discussion group

• Information provided on a summary sheet or in a publication, e.g. Resuscitation for the Citizen *(please note that bleeding is not covered in this booklet).*

Heartstart UK course - Lesson Plan

**Introduction Time: 10 minutes**

|  |  |
| --- | --- |
| **Content**Aims of courseAdvice/warningsThe Chain | Introduction to Heartstart UK, the British Heart Foundation (BHF) and your Heartstart UK scheme. Outline the aims of the course.Inform the trainees that they should only participate in the practical elements of the course if they are physically able to do so. If a trainee has an injury or a disability and cannot practise skills during the course, advise the trainee that it is beneficial that they observe the practical sessions as they could then talk another rescuer through the procedure.Advise the trainees on the important issues related to their welfare:* They should be careful not to risk injury to themselves or others.
* Rescue breathing and chest compression should only be practised on a resuscitation training manikin.
* Techniques for dealing with choking should only be used in an emergency and not practised on another trainee.

Explain the four links in the 'Chain of Survival'. Cover all four links with a brief explanation of each. The focus of the Heartstart UK course is the first two links.* **1 Early recognition and get (professional) help**
* **2 Early CPR to buy time**
* **3 Early defibrillation to restart the heart**
* **4 Post resuscitation care to restore quality of life**

Explain that they should not expect to see the casually recover spontaneously, but emphasise the importance of buying time until professional help arrives. |

Priorities *-* TheConscious Casualty **Time: 10 minutes**

|  |  |
| --- | --- |
| Check for dangerCheck responseWhat to do if thecasualty respondsSummoningassistance/makinga 999 or 112 call | Explain what actions need to be taken to ensure the safety of the rescuer and the casualty. Give one or two brief examples.**Explain the reasons for and the method of checking to see if the casualty responds:**• Gently shake the casualty by the shoulders and ask loudly “Are you all right?"**Explain what to do if the casualty responds by answering or moving:**• Leave him in the position he was found providing he is not in further danger.• Check the casualty's condition and call out for help or make a 999 or 112 call.• After you have called for help regularly assess the casualty in case he deteriorates.**Discuss the important elements of making a 999 or 112 call:**• Explain that the operator will ask for the number the caller is calling from.• Explain that the ambulance control officer will ask a number of questions but this will not affect the ambulance response time.• Briefly explain the use of 999 and 112 numbers. |

The Unconscious Casualty Time: 25 minutes

(Action to be taken when the casualty does not respond)

|  |  |
| --- | --- |
| *Check for danger**Check response*Shout for helpOpen the airwayCheck for normalbreathing | *Recap* - *checking for danger**Recap* - *checking response***Demonstrate a shout for help:**• Explain that the rescuer should not leave the casualty at this point and that the rescuer is trying to attract the attention of another person.• Explain that if there is someone nearby, the rescuer should instruct the person to wait with the rescuer until he or she has checked for breathing.**Demonstrate how to open the airway:**• Show the hand position on the casualty's forehead, and finger position under the tip of the chin.• Explain the reasons for and the effect of this manoeuvre. (The tongue can block the throat and performing this manoeuvre lifts the tongue away from the back of the throat.) Demonstrate on the head section model, if available.**Demonstrate how to check for breathing:**• Keeping the airway open, demonstrate looking, listening and feeling for normal breathing.• Look, listen and feel for up to 10 seconds before deciding if normal breathing is present.• Explain that in the first few minutes after cardiac arrest a casualty/victim may be barely breathing or taking infrequent, noisy gasps often termed as 'agonal breaths'. This is not normal breathing**Trainees to PRACTICE**• Check for danger **D**ANGER• Check response **R**ESPONSE• Shout For help **S**HOUT• Open the airway **A**IRWAY• Check for normal breathing **B**REATHING |

Action to be taken when a casualty IS breathing normally

**Show the Buying Time – The Ice Rink Video**

|  |  |
| --- | --- |
| *Check for danger**Check response*Shout *for help**Open the airway**Check for normal**breathing*The RecoveryPositionSend (or go) forhelp - 999 or 112 | *Recap* - *checking for danger* **D***Recap* - *chocking response* **R***Recap* - *shouting* **S***Recap* - *opening the airway* **A***Recap* - *checking for normal breathing* **B****Explain why a casualty who is unconscious and breathing normally must be turned into the recovery position:**• The casualty's airway may become blocked by the tongue which falls to the back of the throat• The casualty's airway may become blocked, e.g. by vomit• The recovery position helps keep the airway clear**Demonstrate the recovery position without commentary ('real time') and then with commentary****Demonstrate the recovery position with commentary from the trainees.****Trainees to PRACTISE** turning each other into the recovery position following the complete sequence from checking safety to the recovery position. Re-enforcing **D-R-S-A-B** - Explain that if the rescuer is alone, the casualty should be turned into the recovery position before going for help. |

Cardiac Arrest **Time: 40 minutes**

**Show the Buying Time – The Hostel Video**

|  |  |
| --- | --- |
| *Check for danger**Check response*Shout *for help**Open the airway**Check for normal**breathing*Casualty is NOTbreathing *normally*Start CPRChest compressionRescue breathsContinuing CPRCompression onlyCPR | ***Recap* - *checking for danger* D*****Recap* - *checking response* R*****Recap* - *shouting for help* S*****Recap* - *opening the airway* A*****Recap* - *checking for normal breathing* B****Explain that if the casualty is NOT breathing normally. the rescuer should send someone for help. If the rescuer is alone, they must now leave the casualty and go for help by dialling 999 or 112.**While the assistant is calling 999 or 112, or when a lone rescuer returns from calling 999 or 112, the rescuer should turn the casualty onto his back (if they are not already in this position) and start CPR**Demonstrate chest compression without commentary and then with commentary****Demonstrate with trainee commentary**• Kneel at the side of the victim• Place the heel of one hand in the centre of the casualty's chest• Place the heel of your other hand on the top of the first hand• Ensure that pressure is not applied over the casualty's ribs• Position yourself vertically above the casualty’s chest, and with your arms straight press down on the sternum 4 - 5 cm (1Y2- 2 inches)• After each compression release all the pressure on the chest without losing contact between your hands and the breastbone.• Repeat at a rate of about 100 times a minute (a little less than 2 compressions a second)• Give 30 chest compressions**Trainees to PRACTICE*** + Chest compression

After 30 compressions give 2 rescue breaths**Demonstrate rescue breaths without commentary and then with commentary****Demonstrate with trainee commentary*** Open the airway again using head tilt and chin lift
* Pinch the soft part of the casualty's nose closed
* Allow the casualty's mouth to open but maintain chin lift
* Take a normal breath and then place your lips around the casualty mouth making sure you have a good seal
* Blow into the casualty's mouth (over 1 second), whilst watching for his chest to rise
* Maintaining head tilt and chin lift, take your mouth away and watch for his chest to fall
* Give 2 effective rescue breaths

**Trainees to PRACTISE rescue breaths**Combine chest compression with rescue breaths at a ratio of 30 compressions to 2 rescue breaths**Demonstrate CPR without commentary and then with commentary****Demonstrate with trainee commentary**Explain that if there is more than one rescuer present, another should take over CPR about every 2 minutes to prevent tiredness. Ensure the minimum of delay during changeover of rescuers**Trainees to PRACTISE**Trainees practise the following on resuscitation training manikins:• Check for danger **D**• Check response **R**• Shout for help **S**• Open the airway **A**• Check for normal breathing **B**• Send (or go) for help - 999• Commence CPR: give 30 chest compressions **C**• Open airway and give 2 rescue breaths• Combine chest compression with rescue breaths - ratio 30:2**Inform the trainees that if they are not able, or are unwilling, to give rescue breaths, give chest compressions only. Explain the following:**• If chest compressions only are given, these should be continuous at a rate of 100 a minute.• Stop to recheck the casualty only if he starts breathing normally, otherwise do not interrupt CPR.Studies have shown that compressions alone may be just as effective as full CPR in the first few minutes after cardiac arrest; they are certainly much better than doing nothing at all. |

Suspected Heart Attack **Time: 10 minutes**

**Show the Buying Time – The Salon**

|  |  |
| --- | --- |
| Recognise and dealwith a casualty whois having asuspected heartattack | **Discuss the signs and symptoms ofa heart attack and what action should be taken:**• The casualty may have chest pain, often described as a tight band wrapped around the chest. The pain may radiate to one or both arms, to the back, neck or jaw. The casualty may appear pale and sweaty, and is often breathless and anxious. They may feel sick and vomit. They can become unconscious and may have a cardiac arrest.• Emphasise that if the pain lasts for a few minutes an ambulance must be called immediately. Dial999 or 112 and tell the ambulance control that you think the casualty is having a heart attack.• Discuss how to make the casualty comfortable in a relaxed position that will reduce the work of the heart. This will normally be the sitting position with the head and shoulders supported and the knees bent. Encourage this position but do not force the casualty. Allow them to sit however they feel most comfortable.• Emphasise the importance of talking to and reassuring the casualty.• Discuss actions to be taken if the casualty has a cardiac arrest. |

Choking **Time: 10 minutes – Show the Bistro video.**

|  |  |
| --- | --- |
| Dealing with a adultcasualty who ischokingStep 1: Encouragethe casualty tocoughStep 2: Give up to 5back blowsStep 3: Give up to 5abdominal thrusts | **Explain that choking occurs when a 'foreign body' for example a piece of food, gets stuck in the back of the throat blocking the entrance to the windpipe. A choking casualty may have difficulty breathing and may turn blue. If conscious, he *may* try to indicate that he is choking by grasping his neck with his hands or pointing to his throat.****If the casualty is conscious ask him,**• "Are you choking?”• If the casualty is able to speak, cough, and breathe, encourage him to keep coughing, but do nothing else.If the casualty is unable to speak (he may respond by nodding) or unable to breathe, if his breathing sounds wheezy, or his attempts at coughing are silent• Stand to the side and slightly behind him.• Support his chest with one hand and lean him well forwards so that when the obstructing object is dislodged it comes out of the mouth rather than goes further down the windpipe.• Give up to 5 sharp blows to his back, between the shoulder blades, with the heel of your other hand.• Check to see if each back blow has relieved the obstruction rather than necessarily give all five. If 5 back blows fail to relieve the obstruction, give up to 5 abdominal thrusts. These force air out of the lungs by sudden inward and upward movement:• Stand behind the casualty and put both arms around the upper part of his abdomen just below the rib cage.• Lean the casualty forwards.• Clench your fist and place it between the navel and the bottom end of the breastbone.• Grasp this hand with your other hand and pull sharply inwards and upwards.• Repeat up to 5 times.**If the obstruction is still not relieved, continue alternating 5 back blows with 5 abdominal thrusts.****If the casualty becomes unconscious:**• Support the casualty carefully to the ground.• Immediately call 999 or 112 for an ambulance.• Start CPR**Trainees to PRACTISE**  Simulated actions for dealing with the choking adult• If there is enough time, practise the actions for dealing with the unconscious casualty who is not breathing, on a resuscitation training manikin - perform CPR.Explain the differences in infants and children |

Serious Bleeding **Time: 10 minutes**

**Show the Buying Time – The Lab**

|  |  |
| --- | --- |
| Dealing withserious bleeding | **Explain the simple procedures for dealing with serious bleeding:**• Explain how to recognise that someone is bleeding badly. Discuss how they may appear - pale, sweaty, breathless, anxious - and visible blood.• Emphasise the importance of direct pressure over the wound, and elevation of the injured limb to reduce the flow of blood to the wound.• Explain what to do if there is a fixed object embedded in the wound.• Advise the casualty to sit down, or lie the casualty down.• Emphasise that applying tourniquets and indirect pressure are not appropriate.**Trainees to PRACTICE**• Simulated action for dealing with serious bleeding |

Summary **Time: 5 minutes**

|  |  |
| --- | --- |
| General summaryof courseGiving certificatesReporting ELSskills usedOther usefulinformation (furthertraininglocal contacts)Recruitinginstructors | **Summarise what has been covered and reinforce the key points from the course. Cover the following points:**• The links in the Chain of Survival and what each link means• Emphasise the ***DRSABC***principle• Reiterate that simple skills save lives and the importance of acting promptly in an emergency situation**All trainees should receive a certificate of attendance at the end of the course. Encourage trainees to attend refresher training, which is recommended annually.****Trainees should be made aware of the importance of reporting use of skills and subsequent outcomes. Cover the following points:**• Any ELS skills used are potentially live saving• Regardless of the outcome we want to know about all skills used and we definitely need to know about lives saved (helps us to get funding and media coverage to save more).• This information is essential for your scheme, and for the BHF that needs to demonstrate the value of what we all so we may continue to fund community training schemes• Mention the BHF recognition of achievement scheme. This involve presenting the trainee with a certificate of achievement for performing skills in an emergency• Discuss any methods you may have implemented for encouraging trainees to report skills used**Some trainees may express an interest in further training or wish to know more about community responders. Consider the following:**• Courses available, e.g. Youth First Aid, Emergency First Aid at Work, First Aid at Work or Heartstart Instructor• Contacts of local training providers, e.g. Sqn FAI / Wing FAI• Community responder schemes locally (this may be covered in the optional section)• Encourage trainees to tell their families and friends about your scheme, and the importance of ElS training• Pass on any relevant information about the work of the BHFConsider recruiting instructors from trainee group• Openly discuss what is involved• Invite those suitable and interested in to stay behind after the session to discuss• If possible give interested trainees a written summary of what's involved• Arrange to follow up |