ST. JOHN AMBULANCE BRIGADE

Skills Maintenance and Re-examination Programme 1986/1987

NAME ..

DIVISION

DATE ..

ST. JOHN AMBULANCE BRIGADE

SKILLS MAINTENANCE AND RE-EXAMINATION PROGRAMME — 1986/1987

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SECTION A

COMPLETED	
SIGNATURE	DATE

SECTION B

REMARKS:

The District Training Committee commends this 1986/1987 programme to Brigade members and invites suggestions, comments at Training activities and/or in writing to District Training Committee, Skills Maintenance, St. John Ambulance Brigade. C/- 285 LaTrobe Street, Melbourne.

Our objective is that as you work through the programme, you will be able to revise previous skills, and develop new skills in patient care to a standard level which will be obtained throughout the Brigade.

All the best for the year's work.

DISTRICT TRAINING COMMITTEE MEMBERS:

MR. P. CLARK.	
MRS. B. DAVIS.	R.N., C.ST.J.
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ST. JOHN AMBULANCE BRIGADE
SKILLS MAINTENANCE AND
RE-EXAMINATION PROGRAMME - 1986/1987

INTRODUCTION:

The 1986/1987 District Skills Maintenance and Re-Examination Programme adopts and expands the innovative training concepts developed in the previous programme.

The expanded approach relates to the combined application of patient care in the home and first aid theory and practical skills to a series of practical incidents, which incorporate the use of Brigade Casualty Record Sheets B.F.43.

Distribution of the Programme including the training packages will be effected via:-

Regions - Staff Officers/Corps Superintendents, for Regional Staff.
Corps - Corps Superintendents for Corps Staff.
Divisions- Divisional Superintendents for Divisional Members.

PROCEDURE:

(A) Brigade Members -

(1) Each member will receive their own copy of the Programme. The front cover of the programme will be signed and dated on receipt.

(2) Members will sign the Officer-in-Charge master issue sheet, (SMP 2886)

(3) The programme is divided into two (2) sections (sections A and B). Each section consists of a theory module and a number of practical skills modules.

All the practical skills modules pertaining to the section must be practised and when mastery level is obtained, signed, before the practical incident pertaining to the complete section can be attempted.

NOTE:-

'AFA' refers to Australian First Aid SJAA 1984.
'CSH' refers to the Care of the Sick in the Home SJAA 1981.

(4) When all the practical skills modules for the section have been completed (Mastery level reached), the person responsible for your training will issue you with a White Briefing Sheet and a Part-Completed White Casualty Record Sheet.
These sheets will contain the following :-

- History of the incident
- Name of Patient
- Address of Patient
- Time
- Complaint of Patient

(5) Using the history stated on the Briefing and Casualty Record Sheets, the practical incident will be staged and you will treat the patient/s accordingly.

(6) On completion of the incident, you will record your treatment under the appropriate treatment heading listed on the Casualty Record Sheet.

(7) An overall training session on the incident will be conducted by the person responsible for training, and you will be able to check and record treatment in line with the Casualty Record Answer Sheet. Access to this Answer Sheet is via Training Personnel. This sheet will not be issued to members.

At the end of each section, a page headed "Treatment Notes" is provided for recording purposes during workshop segment.

(8) The section, when satisfactorily completed, as per the training programme and Casualty Record Answer Sheet, will be signed and dated by the responsible person.

(9) You cannot attempt the section practical incident until all the practical skills modules pertaining to that section have been signed as satisfactory.

(B) Officers/Training Personnel -

(1) Unless exempted under General Regulations, all Officers/Members of the Brigade shall complete the Skills Maintenance and Re-Examination Programme to the standard prescribed.

(2) The term "Training Personnel" refers to Officers and/or a Brigade member so designated to a training function. If professional training personnel are unavailable within divisions, then the Officer-In-Charge should communicate the name, qualifications etc. of a nominee to fill the role to the District Training Committee for consideration.
All such requests will receive written advice.

(3) Officers and or designated training personnel are responsible and accountable for the modules of the training programme they have signed as being satisfactorily completed.

(4) Practical skills items pertaining to the module being undertaken must be signed as satisfactory before the relevant section practical incident can be attempted.

(5) The section practical incident will not be undertaken and assessed on the same day/night which the relevant practical skills modules have been taught.

(6) If, on conclusion of the section practical incident Training Module the member is found to be unsatisfactory, then further training will be given, and another date and time for the assessment will be arranged.

(7) On satisfactory completion of the section practical incident, sign and date the programme in the space provided at the end of the relevant section.

This programme belongs to all Officers and Members of the Brigade, and it's success depends on all of us working as a team. Your help, assistance and valued comments are always appreciated.

PROGRAMME APPLICATION - SUMMARY

TRAINING PERSONNEL

1. Select one section of the programme.
   - Can select/start at any section

2. Practical skills pertaining to the section modules are taught and assessed.
   - Spread evenly over the training period.
   - Sign and date each practical skills module pertaining to the section when members reach a satisfactory standard as per the programme.

3. Issue the white, Briefing for Practical Incident Sheet and the white Practical Incident Casualty Record Sheet (without treatment)
   - Practical Incident Casualty Record sheets are marked section A and B to match the particular section being undertaken.

   NOTE:

   - DO NOT issue section Practical Incident Casualty Record sheet to members :

   **On same day/night that the module practical skills pertaining to that section have been assessed.

   **If the module practical skills for the section have not been satisfactorily completed.

4. Stage the incident
   - Members complete treatment details in the treatment column on the Practical Incident Casualty Record Sheet.

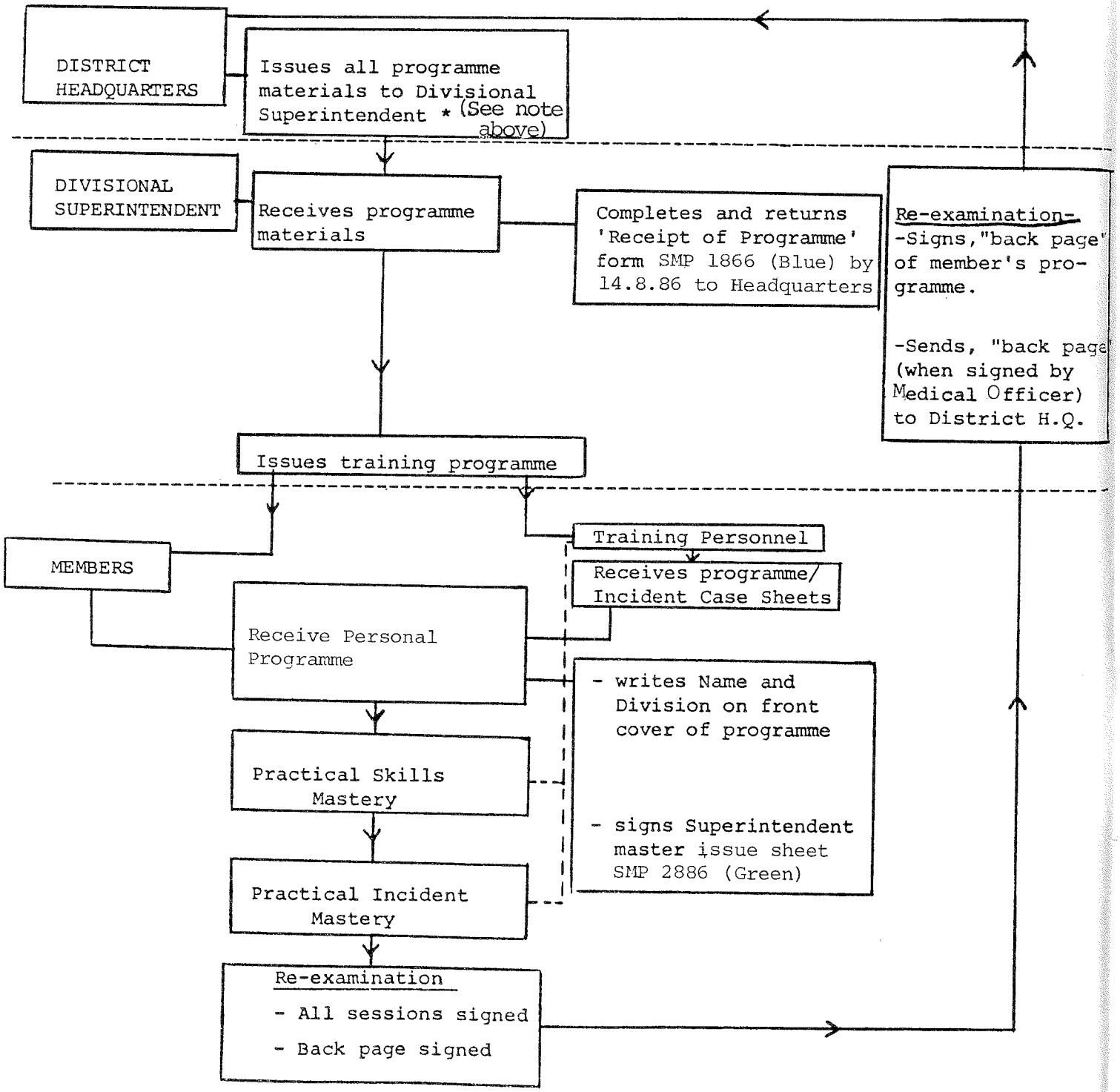
5. On completion of the Incident, Training personnel will conduct a workshop segment on the Practical Incident
   - Use Practical Incident Casualty Record Answer sheet (pink) supplied (these are marked section A and B to match the particular section being undertaken). DO NOT issue this pink sheet.
   - During training workshop, ensure members consult their own Casualty Record sheet (Treatment column and compare same with Casualty Record Answer sheet.
   - Space is provided within the programme (headed 'Treatment Notes') for members to use during workshop segment.
   - If practical incident has been completed to the satisfactory performance standard, then sign and date the particular section of the members programme.

- If unsatisfactory, repeat incident.

- DO NOT proceed to the next section until the member has satisfactorily completed the section in hand.

* Note : Diagram illustrates procedure for all Divisional Superintendents, Region Staff Officers, Corps Superintendents to follow same procedure for their respective staff.

PROGRAMME ADMINISTRATION - FLOW DIAGRAM :



ANNUAL RE-EXAMINATION :

(a) Re-examination based on this programme will be held during the period June - July 1987 to comply with general regulations 9.9(i) and should NOT be conducted on same night as Annual Inspection.

(b) Your training programme which you will keep in your possession and complete as the year progresses, must have all modules (skills and practical incidents) marked as satisfactory before the night of your re-examination.

(c) The confirmation of completion of programme modules (back page) must be signed by you and your Superintendent prior to the re-

(d) On the night of your re-examination, the Medical Officer will firstly examine your Training Programme. If completed and satisfactory, you will then be asked to complete a practical incident incorporating skills selected at randon from your Training Programme. C.P.R. may also be included each year.

This is a spot test to satisfy the Medical Officer that you have reached the required standard in practical skills application. Also, it is a check that those responsible for signing your programme have insisted on the appropriate standard being met.

(e) The Medical Officer will then sign the confirmation of completion of re-examination section (back page) and this page will then be forwarded to District Headquarters by your Superintendent.

(f) To meet the Brigade efficiency requirements for 1986, you must have your Training Programme completed before the night of the re-examination and attend the annual re-examination.

Members on 'reserve', Cadet Officers and Senior Cadets must also meet these requirements.

(g) This is the only method of re-examination acceptable for 1987. No other examination will be accepted e.g., St. John Ambulance Association First Aid class examinations.

NOTE: This programme covers July 1986 - June 1987 and when satisfactorily completed you are:

- proficient to practise for 1987
- entitled to years efficiency for 1986 on BF.4.

RESPONSIBILITY FOR TRAINING PROGRAMME:

It is each individual member's responsibility to keep his/her own Programme up to date, have it signed as appropriate and present it at the annual re-examination.

A lost or misplaced Programme will result in you having to re-start a new Training Programme.

DISTRICT SURGEON

JULY, 1986

SECTION A

SECTION A

• MODULE 1

- OBJECTIVE

On completion of the Training Period and after studying the material listed below the Brigade Member will be able to apply this knowledge to the Sections Mock Practical Incident.

RESPIRATORY DISTRESS

DEFINITION

Respiratory distress is acute difficulty in breathing, or shortness of breath.

HISTORY of this episode of respiratory distress, or any previous episode, is vital.

SYMPTOMS AND SIGNS

The patient may complain of any of these symptoms and signs :

- choking feeling
- "can't get enough breath in"
- "can't take a deep breath"
- chest feels tight
- feeling wheezy
- "short of breath"
- chest pains
- cough
- dizziness
- pins and needles in hands and feet and around mouth.

SIGNS

There may be no signs of the patient's respiratory distress, or you may observe any of the following :

- increased respiratory rate
- noisy breathing
- laboured breathing (where the casualty's whole chest seems to heave with every breath)
- increased pulse rate
- cyanosis (blue lips)
- frothy or blood-stained sputum
- anxiety, confusion or restlessness
- evidence of chest injury

TREATMENT

Often basic First Aid or Patient Care Treatment is all that is required (or possible) for respiratory distress.

This includes:

- treatment of underlying injury (if possible)
- rest, reassurance and position of comfort
- oxygen (if available)
- medical aid

CAUSES

Respiratory distress can be due to many conditions. Often it is caused by something quite apart from the chest or airways.

e.g. stress or excitement
severe stomach pains

1. Medical Causes

(A) Upper Airway

Any upper airway obstruction is a serious condition and requires urgent medical aid. The patient will usually complain of a choking feeling and usually has shallow, noisy respiration.

The usual causes :

- swollen throat from infection or allergy.

Ice packs to the throat may help. If the casualty is conscious, sucking an ice block may give some relief.

(B) Lungs and Chest

Chest conditions are usually recurring, and the patient will often have a past history of respiratory distress. They may tell you the name of their disease, the tablets and treatment they require, and the name of the hospital they usually attend!

In most cases oxygen is the only treatment available before the patient reaches medical aid. People suffering from chronic lung complaints should only be given oxygen if they are very distressed. If given, the rate should be at or below 2 litres/minute.

For all these lung conditions the patient will probably have the following signs and symptoms:

- shortness of breath
- chest pains, sharp, and worse on breathing
- cough
- wheeze (particularly in asthma)

The common conditions are:

- asthma
- chronic bronchitis and emphysema
- pneumonia
- pneumothorax (collapsed lung)
- pulmonary oedema (fluid on the lungs due to heart failure)
- overbreathing hyperventilation)

Overbreathing can be difficult to diagnose. The patient is usually young, and usually in a stressful situation e.g. at a pop concert, following a car accident.

These symptoms are :
- overbreathing
- pins and needles in hands, feet and around mouth
- and, in severe cases cramps in the hands & feet.

The treatment is reassurance and breathing in and out of a paper bag.

(C) Non-respiratory Causes of Respiratory Distress

Respiratory distress can be a symptom of any serious medical condition, especially severe pain or shock.

One of the first signs of shock - whether due to internal haemorrhage, overwhelming infection, extensive burns, or severe pain - is an increased respiratory rate.

Other common causes of an increased respiratory rate are:

- heart attack
- snake bite
- poisonings
- stress, anxiety or excitement

2. Accidents & Injuries

(A) Upper Airway

Anything that causes injury to the upper airway can be fatal, and requires very prompt emergency treatment.

Causes include:

- choking
- strangulation and hanging
- jaw and mouth injuries
- drowning
- bites to the upper airway

(B) Lungs and Chest

The ribcage is very springy and can withstand a great deal of force. However, once the ribcage has been fractured, lung injuries can be serious or even fatal.

The lungs may be :

- bruised
- compressed (by a flail segment)
- punctured (by a fractured rib)

Rib or sternum fractures may make breathing so painful that respiration is very seriously affected, particularly in someone who smokes heavily or has a previous chest problem e.g. chronic bronchitis.

Other organs may be damaged in chest fractures, like the heart, liver or spleen. And shock may develop at any time.

The commonest injuries are :

- fractured ribs
- fractured sternum (particularly if the patient hits the steering wheel)
- flail chest
- penetrating chest injury (causing pneumathorax)

Remember that a patient may have rib fractures, a flail segment and a punctured lung.

• MODULE 2

Objective : On completion of the training period and after practising the practical skills listed below (to the satisfactory performance level as per the module points/checklists) the Brigade member will be able to apply one or more of these skills to the sections mock practical incident :-

PRACTICAL SKILLS

2.1 - examine and clear an airway

2.2 - maintain an open airway (3 methods)

2.3 - use suction equipment

2.4 - insert oro-pharyngeal airway

2.5 - apply the treatment for choking

2.6 - use a soft bag resuscitator on a non-breathing patient

2.7 - treat a patient with a flail chest

2.8 - apply triangular bandages to a patient with fractured ribs

STORES REQUIRED

- suction apparatus (e.g. Oxyviva)
- container of water
- soft bag resuscitator (e.g. Airviva)
- Oro-pharyngeal airway
- Resusci-baby
- Manikin
- Triangular bandages

2.1. EXAMINE AND CLEAR AN AIRWAY

Satisfactory

CHECK LIST	Tick
- kneel beside the patient	✓
- turn the patient onto the side	
- support the patient's head so that it is tilted backwards, a little above the ground, and slightly face down	
- open patient's mouth and allow any fluid to drain away	
- look inside patient's mouth for foreign bodies e.g. loose teeth, food	
- clear the mouth of foreign bodies, by sweeping one or two fingers around the mouth : start from uppermost side of mouth.	
- look inside mouth again	
- lower patient's head onto the ground and continue your examination with the patient lying on the side	

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

2.2 OPENING THE AIRWAY

N.B. These methods can be used with the patient either on their side or back

Satisfactory

CHECK LIST	Tick
(i) Head tilt/jaw support - kneel beside the patient's head - place the heel of one hand on the patient's forehead - place other hand on patient's chin, with your thumb on the chin and your index finger along the line of the jaw. Your other three fingers will be curled up, with the knuckle on your middle finger pressing under the point of the chin. (This is the pistol grip - see P.47, diagram 3.6, Australian First Aid, St. J.A.A.)	
(ii) Head tilt/jaw thrust - kneel beside the patient's head - place the heel of one hand on the patient's forehead - place your other hand under the patient's jaw at the angles of the jaw - tilt the head backwards - lift the jaw forwards and upwards relative to the patient's face	
(iii) Head tilt/neck lift (This is the least effective method) - kneel beside patient's head - place one hand on the patient's forehead and the other behind the patient's neck - lift the neck forwards while tilting the head back	

PRACTICAL SKILL MASTERED

SIGNED:.....

DATE:.....

2.3 USE SUCTION EQUIPMENT

Satisfactory

CHECK LIST	Tick
- connect to oxygen equipment	
- connect suction tubing and Y catheter to the suction bottle	
- measure distance from the tip of the patient's chin to the ear lobe: this is the furthest that you can insert the tube	
- turn on the suction valve	
- place Y catheter in the patient's mouth and place your thumb over the short arm of the Y. This creates suction	
- move catheter around all parts of the patient's mouth for 10-20 sec. ~~If there is an artifical airway in position, you may pass the suction catheter down the centre of the airway.~~	
- flush through with water	
- turn off the suction valve	
- repeat as neccessary	

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

2.4 INSERT AN ORO-PHARYNGEAL AIRWAY (NOTE FIG. 1 BELOW)

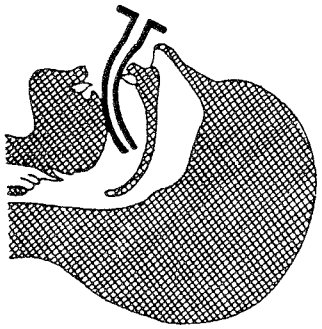
(Manikin To Be Used)

Satisfactory

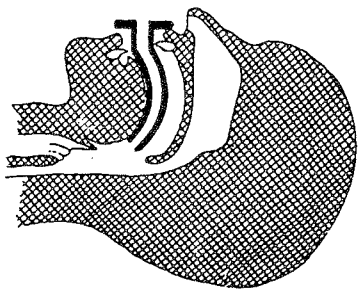
CHECK LIST	Tick
- select appropriate size airway	
- check that casualty has a clear airway	
- moisten end of airway with water, patients saliva or lubricant	
- open patient's airway by head tilt/jaw support method	
- maintain head tilt and keep patient's mouth open	
- pick up the airway by the flanged end and position it so that the convex curve is against the patient's bottom lip	
- insert the airway between the tongue and roof of the mouth until half the airway is in the mouth (see Fig. 1 step A below)	
- rotate the airway 180° and slide it into the mouth fully (see Fig. 1 Step B below)	
- check that the bottom lip is not curled	
- check that the lumen (hole) of the airway is clear. ~~Use suction if it is blocked~~.	
- check that air is moving freely through the airway	

FIG. 1 INSERTING AN ORO-PHARYNGEAL AIRWAY

STEP A



STEP B



PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

2.5 TREATMENT FOR CHOKING

Satisfactory

CHECK LIST	Tick
ADULT	
- explain procedure to patient	
- look into mouth and remove any visible foreign body	
- place patient on the ground or floor, with the head lower than the chest	
- strike the patient firmly between the shoulder blades 3-4 times, using the heel of your hand	
- repeat this procedure if necessary	
- after the foreign body has been removed, check patient's breathing and circulation	
CHILD OR INFANT	
- explain procedure	
- look into the mouth and remove any foreign body	
- hold the child head down across your lap, or upside down	
- strike the child between the shoulder blades 3-4 times, using the heel of your hand	
- repeat this if necessary	
- after the foreign body has been removed, check the child's breathing and circulation	

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

2.6 USE A SOFT BAG RESUSCITATOR ON A NON-BREATHING PATIENT (NOTE FIG. 1 & 2 overleaf)

Satisfactory

CHECK LIST	Tick
- kneel at head of patient	
- check and clear airway	
- open airway	
- insert an Oro-Pharygeal Airway	
- choose appropriate size face mask (adult or child)	
- squeeze soft bag to check relief valve and exhalation valve	
- place mask over patient's face (narrow part over bridge of nose)	
- secure mask over patient's face: thumb over nose at top of mask index finger over base of mask other three fingers under the jaw, pulling it up and back (see Fig. 2 over-leaf)	
- check that the mask is firmly applied and that the head tilt is maintained	
- squeeze the bag with the other hand and watch for the chest to rise, then release the bag	
- squeeze the bag every 5 secs. (adult) or every 3 secs. (child)	
- check constantly that the equipment is functioning and that your technique is correct: check that the mask maintains a tight seal check the rise and fall of the patient's chest check constantly for evidence of vomiting monitor patient for return of normal breathing	
- fit oxygen tubing to oxygen inlet nipple if this is possible with your equipment	

2.6 USE A SOFT BAG RESUSCITATOR - continued

FIG. 1 AIR-VIVA-(One Example of a Soft Bag Resuscitator)

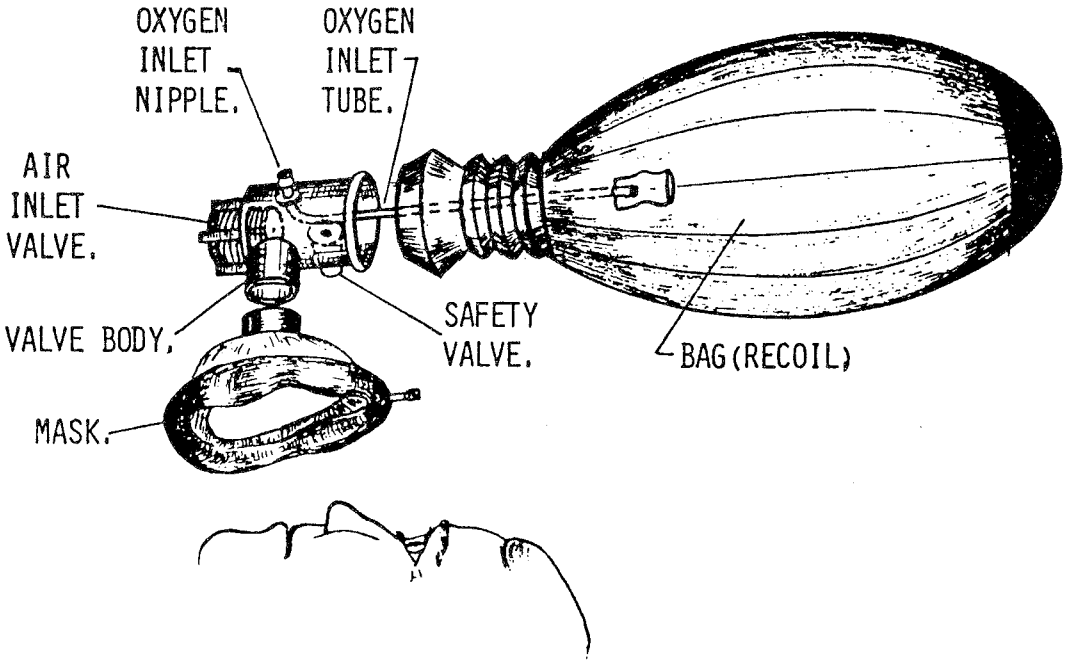
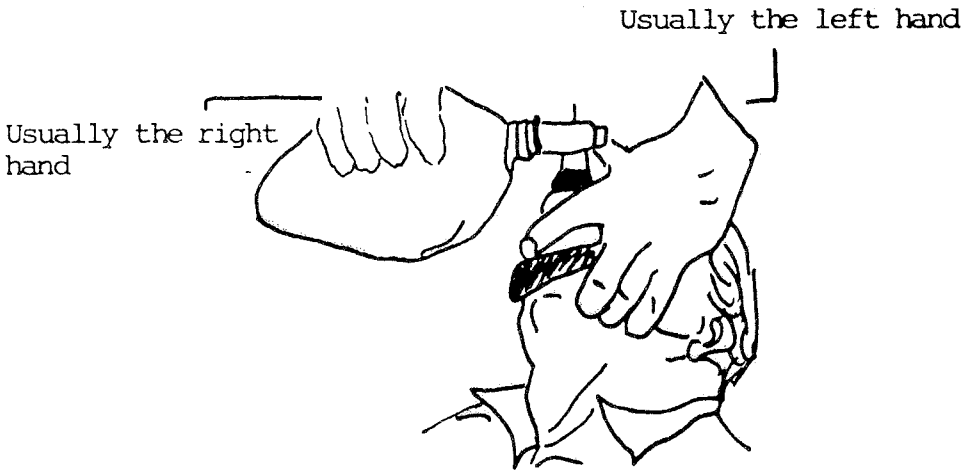


FIG. 2 POSITIONING OF MASK



PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

2.7 TREAT A PATIENT WITH FLAIL CHEST

Satisfactory

CHECK LIST	Tick
- check D R A B C . - check pulse and respiratory rate. - check abdomen for tenderness and rigidity (signs of internal abdominal haemorrhage). unless flail segment is above the nipple line. - if the patient is conscious place them in half sitting position, injured side down. - place large dressing over flail segment. - tie one or two broad bandages firmly around the chest to secure the dressing. - splint the chest with the arm on the injured side. The arm should be bent at the elbow, fingers pointing to the opposite shoulder and securely bandaged to the chest. - give oxygen if the patient is very distressed. - check that the patient feels more comfortable with the bandage in position. - check pulse and respiratory rate constantly (if they rise, it may indicate shock developing) - write down your observations.	✓ ✓ ✓ ✓

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

2.8 APPLY TRIANGULAR BANDAGES TO A PATIENT WITH FRACTURED RIBS

Satisfactory

CHECK LIST	Tick
- check D R A B C.	
- check pulse and respiratory rate.	
- check abdomen for tenderness or rigidity (signs of internal abdominal haemorrhage) unless the rib fractures are above the nipple line.	
- if the patient is conscious, place in half-sitting position, injured side down.	
- place soft padding over injured area.	
- ask patient to fold his/her arms across the chest, thus holding the padding in place.	
- pass a broad bandage around the patient's chest and upper arm on the injured side.	
- tie bandage firmly with a reef knot on front of the uninjured side.	
- place padding under knot.	
- apply St. John sling to the supporting arm.	
- check that the patient feels more comfortable, and that breathing is not unduly restricted.	
- check pulse and respiratory rate (if it has risen, think of shock)	
- if patient is very distressed, give oxygen.	
- write down your observations.	

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

• MODULE 3

Objective : On completion of the training period and after practising the practical skills listed below (to the satisfactory performance level as per the module points/checklists) the Brigade member will be able to apply one or more of these skills to the sections mock practical incident :-

PRACTICAL SKILLS

3.1 - How to use a thermometer to obtain a patient's temperature

3.2 - Take an Oral temperature

3.3 - Take a Pulse - radially

3.4 - Count a patient's respiratory rate

3.5 - Administer a steam inhalation to a patient

STORES REQUIRED

- Thermometer
- Jar of water
- Antiseptic Solution
- Watch with sweeping second hand
- Jar of cotton wool
- Paper bag
- Jug
- Hand towel
- Thick paper bag
- Paper tissues
- Protector for hair

3.1 HOW TO USE A THERMOMETER TO OBTAIN A PATIENTS TEMPERATURE

Pre-requisite - Explanation about the parts of a thermometer

NOTE: BEFORE ALL PROCEDURES WASH HANDS

Satisfactory

Stages	Key Points	Tick
(a) Pick up thermometer	- by non-bulbous end - hold between thumb and first finger	
(b) Observe markings	- heavy lines are degrees e.g. 37 C - light lines are parts of a degree e.g. 37.1 C	
(c) Observe mercury	- note the level of the mercury - if not below 35 C or 95 F shake thermometer, by a flick of the wrist action - Recheck level of mercury	

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

3.2 TAKE AN ORAL TEMPERATURE

Satisfactory

Stages	Key Points	Tick
A. Sit or lie patient down and explain procedure to patient.		
B. Ensure patient hasn't had anything that could influence temperature recording e.g. hot/cold drinks/food etc.		
C. Observe position of mercury	- must be below 35°C or 95°F	
D. Wipe antiseptic off thermometer	- with a water moistened swab	
	- swab from non bulbous end to bulbous end (see page 41-42 Care of the Sick in the Home).	
E. Position thermometer	- under tongue	
	- mouth closed (close lips not teeth)	
	- do not talk	
	- for at least 2 minutes	
F. Read thermometer	- observe level of mercury and note nearest marking e.g. 38°C	
G. Swab thermometer	- with a dis-infectant solution.	
H. Record Details	- e.g. Mrs. Smith temperature 36°C at 1000 hrs	

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

3.3. TAKE A PULSE - RADIALLY

Pre-requisite - know location of the radial artery.

Stages	Key Points	Satisfactory Tick
A. Explain procedure to patient		✓
B. Rest the patient and the arm		
C. Locate radial artery	- thumb side of arm - wrist area - place the tips of two/three fingers along line of artery.	
D. Taking pulse	- gentle but firm pressure - Count rate e.g. 96 per/min. - Count rate for 1 min. NOTE: rhythm e.g. regular volume e.g. bounding	
E. Record information	- e.g. Mrs. Jones pulse rate 96 regular and bounding	

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

3.4 COUNT A PATIENT'S RESPIRATORY RATE

Introduction

This procedure is performed, so patient isn't consciously aware that respirations are being counted.

e.g. Count respiration rate whilst fingers are still in position after counting pulse rate.

Stages		Satisfactory Tick
A. Observe Lower chest, Upper Abdominal area	- Breathing in (Inspiration) and - Breathing out (Expiration) - = 1 Respiration	
B. Count Respirations	- Note rate e.g. 16/per min - Note pattern e.g. regular - Character e.g. noisy - Depth	
C. Record	- Mrs. Thomas has a respiratory rate of 16 regular and noisy	

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

3.5 ADMINISTER A STEAM INHALATION TO A PATIENT

Introduction

A. Definition of a Steam Inhalation

Act of breathing in through the mouth or nose a vapour e.g. steam, gaseous drug, nebulized liquid drugs e.g. drugs for asthma treatment, or finely powdered solid drugs.

B. Uses of Steam Inhalation

1. Produce a local effect on the upper respiratory passages through which the vapour passes.
2. To influence the circulation in the lungs and so either increase or decrease the bronchial secretions.
3. To allay spasm of the tubes by affecting alteration of the control of contraction or dilatation of the blood vessels.

C. Action of Steam Inhalations

The action of a steam inhalation is to :-

1. Soften secretions
2. Make secretions less sticky
3. Assist in the coughing up of secretion, or
4. Assist in ability to blow secretions from the nose.

D. Five Conditions or Reasons You May Give an Inhalation Are :-

1. To relieve hoarseness
2. For sore throat
3. Coughing
4. Difficulty in breathing
5. Administration of medication

E. After a Steam Inhalation

1. Encourage patient to blow nose
2. To try to cough up sputum
3. Advise to remain in same atmosphere
4. Advise re breathing exercises.

* N.B. Special precautions must be taken when giving an inhalation to young children and elderly people, because very hot water is used. These patients must be supervised whilst this treatment is being given and never left alone.

STEAM INHALATION

CHECK LIST	Satisfactory Tick
APPROACH TO PATIENT	
Introduce yourself	
Explain what you are going to do	
Prepare working area	
Close windows, doors, etc.	
Wash Hands	
REQUIREMENTS FOR INHALATION	
Jug on to boil	
COLLECT - Jug (non heat conductive if possible)	
Bowl or tray	
Hand Towel	
OR Thick paper bag	
OR Newspaper funnel	
Paper tissues	
Paper bag for disposal	
Protector for hair if necessary	
Drug e.g. menthol crystals, Friars' Balsam or as ordered by Doctor.	
PREPARATION OF PATIENT	
Sit patient up to table	
Advise patient to be still)	
" " " " careful) and why (Danger Hot Water)	
Protect patient - towel & plastic	
" table top " "	
Put on hair protector	

Steam Inhalation Cont'd — Satisfactory

CHECK LIST	Tick
PROCEDURE	
Allow steam to escape from boiling water for a few minutes	
Stand jug in tin or bowl	
Pour in water	
Add drug	
Cover and carry to table	
Place towel around jug	
Tell patient to keep eyelids closed	
Place patient's nose and mouth over the opening in the towel, etc.	
Inhale steam	
Continue for 6-10 minutes	
TIDY UP	
Equipment used - washed	
dried	
replaced	
DO NOT OPEN WINDOWS	
Wash hands	

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

SECTION A

"TREATMENT NOTES"

SECTION A COMPLETED

- SATISFACTORY STANDARD OBTAINED

SIGNED .....

DATE .....

SECTION B

SECTION B

• MODULE 4

- OBJECTIVE

On completion of the training period and after studying the material listed below the Brigade member will be able to apply this knowledge to the sections mock practical incident.

CARDIAC CONDITIONS

The circulatory system is responsible for transport of oxygen, nutrients, waste products, hormones, and heat around the body. To circulate a fluid such as blood requires a source of energy.
This energy, which is produced by the rhythmic contractions of a pump, the heart, is converted from energy contained in food materials, such as glucose and fatty acids.

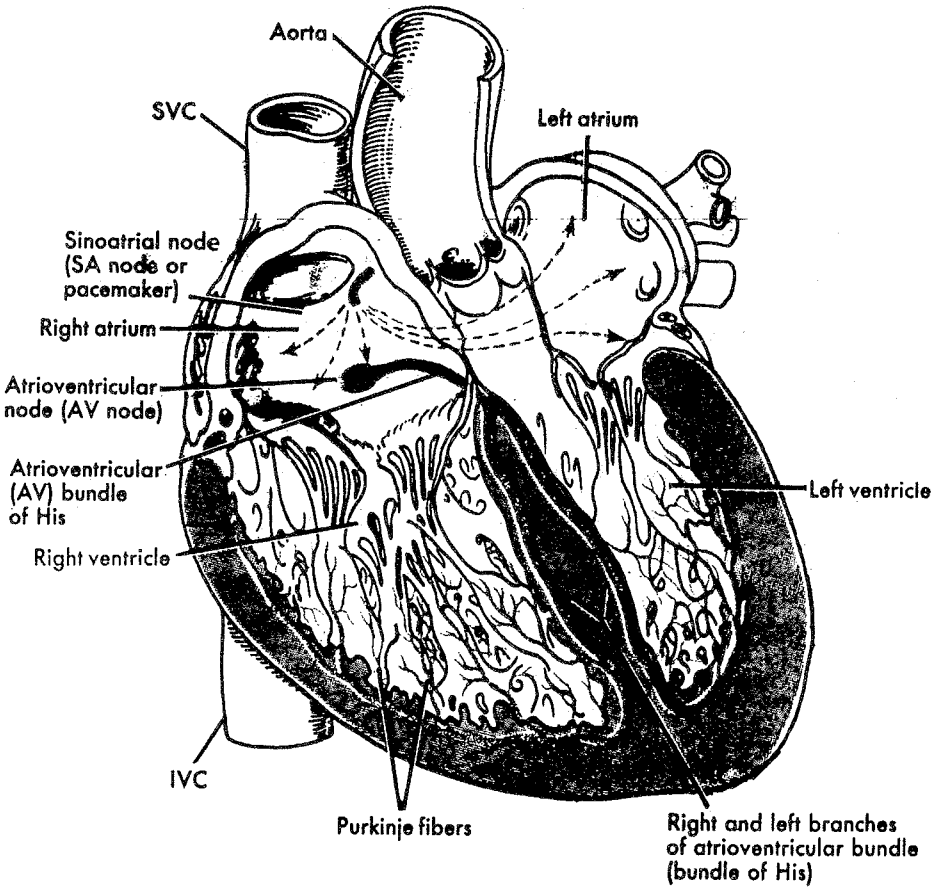
The cardiac muscle is composed of two relatively distinct cell groups :-

A. Working myocardial cells - these cells make up the bulk of the heart, and are responsible for contraction.

B. Conducting myocardial cells - this cell type is specialised to conduct the electrical impulses rapidly to all parts of the heart. These cells make up the Sino-Atrial Node, the Atrio-Ventricular Node and the His-Purkinje System.

Cardiac muscle is excitable and responds to external stimuli by contracting. This stimulus reaches all cells via the cardiac conducting system. Ventricular contraction is called systole and relaxation diastole. The efficiency of the heart is low with about 15% of its total energy requirements being productively utilised. This proportion increases during exercise. However the reliability of the heart far exceeds any man made pump.

Illustration of heart showing the conduction system.



The S.A. Node (Sino-Atrial) is situated in the right atrium about 1mm below the surface of the outer layer of the heart muscle. This node is supplied by blood from a branch of the coronary artery.

The A.V. Node (Atrio-Ventricular Node) is situated at the junction of the Atria and Ventricles. It is also supplied with blood from a branch of the coronary artery. The lower part of this node forms the His Bundle. The His Bundle divides to form the Right and Left Bundle Branches which go down either side of the Septum into the ventricles, where at their periphery they blend as Purkinje Fibres with the myocardial cells.

Electrical impulses travel from the S.A. Node across pathways in the myocardium to the A.V. Node. This excites the Atrial myocardium causing the muscle to contract. The impulse is picked up by the A.V. Node, and travels slowly through the Bundle of His, and the Right and Left Bundle Branches to the Purkinje fibres. As the impulse travels from the Purkinje fibres, to the myocardial cells, the ventricles contract. The total cycle from the S.A. Node to the ventricles contracting takes approximately 0.12 seconds.

The Sinus Node sends out pulses at a rate of approximately 60 per minute, hence it is considered to be the pace maker of the heart. The A.V. Node will pulsate at approximately 45 per minute if the Sinus Node fails to fire. If these two nodes do not send out pulses, the ventricles will contract at approximately 30 per minute.

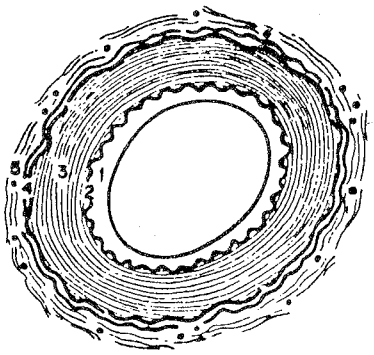
The coronary arteries supply blood to the Myocardium (heart muscle). Any interruption of blood supply through the coronary arteries, affects not only the heart muscle (Myocardium) but also the Electrical Conduction System.

All arteries in the body gather fatty plaques along the inside walls, as we get older. Provided that there is enough space left in the artery no interruption to blood supply to muscles or organs is noticed. However, coronary arteries are small in size, and so they are more easily blocked.

Partial blockage of the coronary artery may leave enough room for blood to flow to the heart muscle whilst the body is at rest, but if the body is involved in exercise and the heart rate increases, the heart muscle may not get enough blood. This creates pain that is relayed to the chest wall. The heart may not pump efficiently and the person will be short of breath. This condition is called Angina Pectoris, or Angina of Effort.

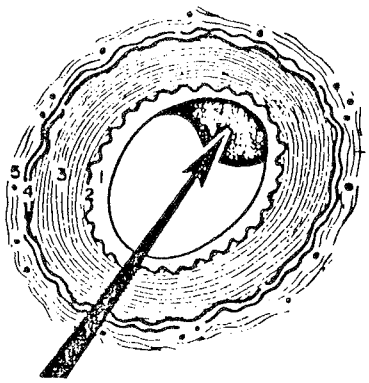
DIAGRAM OF CORONARY ARTERY

CLEAR



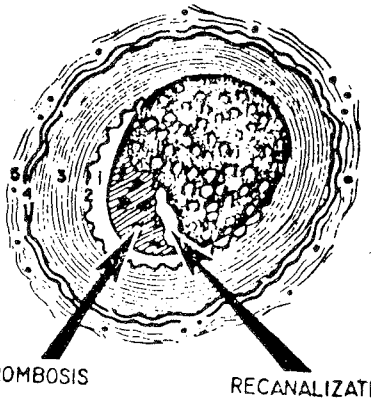
1. INTIMA
2. INTERNAL ELASTIC MEMBRANE
3. TUNICA MEDIA
4. EXTERNAL ELASTIC MEMBRANE
5. TUNICA ADVENTITIA

PARTIALLY OCCLUDED



INTIMAL CHANGE AND SUBINTIMAL PLAQUE

FULLY OCCLUDED



ANGINA PECTORIS

This condition is characterised by a crushing chest pain that develops on exertion. The pain is caused by a partial blockage of the coronary artery which starves the heart muscle of oxygen as the heart rate increases.

Signs and Symptoms :- Crushing central chest pain
Shortness of breath
Pale colour, patient feels cold

Management :- Pain is relieved by rest. Breathing returns to normal, and colour improves. Sometimes this patient has Tablets e.g. Anginine, which are placed under the tongue, and allowed to dissolve.

CORONARY OCCLUSION

This condition is also characterised by crushing central chest pain, which radiates to the arm, neck, and sometimes through to the back. This pain is caused by a full blockage of a coronary artery, which deprives a section of heart muscle completely of oxygen. This causes an Acute Myocardial Infarction - (Death of Heart Muscle.)

Signs and Symptoms :- Crushing central chest pain, radiating to the left arm, up into the neck, and sometimes into the back. Patient is short of breath, and is pale, cold and sweaty.

Management :- Pain is not relieved by rest. Patient needs to be sent to hospital by ambulance. While waiting for the ambulance, rest patient in comfortable sitting position. Give oxygen if available. If unconscious, turn on side.

CONGESTIVE CARDIAC FAILURE

This condition is caused by a building up of blood in the left side of the heart. This can be caused by valve failure (Mitral Valve, Aortic Valve) or failure of the heart muscle to contract sufficiently. Blood builds up in the left Ventricle, Left Atria, and back through the Pulmonary vein to the lungs. As the blood flow slows through the lungs, the plasma separates from the red cells and fills up the Alveoli. Because of this, gas exchange cannot take place and the patient is starved of oxygen.

Signs and Symptoms : - Breathing is shallow and gurgly, pale sweaty complexion, some chest pain.

A similar condition can occur on the right side with the build up of fluid being in the periphery (e.g. ankles) rather than in the lungs.

Management : - Rest patient in sitting position, give oxygen if available. Arrange ambulance transport to hospital, as soon as possible. If available, Mobile Intensive Care Ambulance transport is ideal for all cardiac patients.

• MODULE 5

- OBJECTIVE — On completion of the training period and after practising the practical skills listed below (to the satisfactory performance level as per the module skill sheets) the Brigade member will be able to apply one or more of these skills to the sections mock practical incident :

PRACTICAL SKILLS

5.1 Perform Cardiopulmonary Resuscitation with one and two operators.

5.2 Position a Patient into the Coma Position

5.3 Position a Patient into the Lateral Position

STORES REQUIRED

- Manikin
- Blanket

5.1 PERFORM CARDIOPULMONARY RESUSCITATION

Introduction:

Becoming proficient in C.P.R. is not simply the mastering of each individual skill, but also being able to combine these skills together in the appropriate order when C.P.R. is required.

Satisfactory

	CHECK LIST	Tick
DRABC		
D	Quickly assess the situation and isolate any dangers to yourself and the patient (THE AREA IS SAFE)	
R	Attempt to get the patient to respond to your voice. Shake the patient gently and shout : Can you hear me? Open your eyes! What is your name? (Remember: COW) (THERE IS NO RESPONSE)	
A	Before moving the patient's head open the patient's mouth and look for any foreign objects which may cause airway obstruction, and remove them. Turn patient on side taking particular care as there is a possibility of spinal injury, and then recheck mouth for any foreign objects. If no foreign objects are in the mouth then tilt the head back to open the airway, with one hand on the forehead and the other supporting the jaw. (THE AIRWAY IS CLEAR)	
B	Establish if the patient is breathing. LOOK for any rise and fall of the chest/abdomen. LISTEN for air moving through nose and mouth. FEEL for expired air on the side of your face. LOOK, LISTEN, and FEEL can all be done simultaneously. (BREATHING IS ABSENT)	

PERFORM CARDIOPULMONARY RESUSCITATION cont.

Satisfactory

	CHECK LIST	Tick
DRABC	If breathing is absent turn patient onto back and commence Expired Air Resuscitation, by administering five (5) quick full breaths, within 10 seconds. EXPIRED AIR RESUSCITATION - METHOD - Head tilt/jaw support - Open patient's mouth - Pinch patient's nose. - Take a breath of air - Place your mouth over the patient's mouth so as to make a seal. - Inflate the patient's lungs. - Turn your head to the side to see the fall of the patient's chest, whilst taking another breath.	
C	Establish if the patient has a detectable carotid pulse. Allow yourself five (5) seconds to do this. (THE PULSE IS ABSENT) If the pulse is absent commence External Cardiac Compressions and continue with C.P.R. EXTERNAL CARDIAC COMPRESSIONS - METHOD - Ensure the patient is lying on a firm surface. - Before first beginning E.C.C. locate the correct hand position using the caliper method. - Whilst kneeling next to the patient, place the index finger of the hand closest to the patient's head at the notch (or hollow) at the top of the sternum, and the index finger of the other hand at the bottom of the sternum where the two lower ribs join. - Using both thumbs, divide the sternum into two equal parts. -Leaving the lower hand in this position, place the heel of the hand closest to the patient's head between the thumb and index finger of the lower hand, directly above the sternum. - Now place the hand closest to the patient's feet over the first, and interlock the fingers. - With elbows locked and your shoulders directly above the patient's sternum, compress the chest four (4) to five (5) centimetres. -During E.C.C. the hands should always remain in contact with the chest. When performing one rescuer C.P.R. it becomes	

PERFORM CARDIOPULMONARY RESUSCITATION cont.

Satisfactory

	CHECK LIST	Tick
DRABC	necessary to stop E.C.C. periodically to ventilate the patient (E.A.R.). Finding the correct hand position must be done quickly, and for this reason an alternative method for hand positioning is used. The caliper method should still be used the first time, but from then on use the following method. - Locate the lower end of the sternum, by running your fingers along the lowest rib on each side from the outside inwards; where the fingers meet in the midline marks the lower end of the sternum. - Place the index finger of the hand closest to the patient's feet at this point, and place the heel of the other hand just above this finger and over the sternum. - Next place the hand closest to the patient's feet on top of the other hand, interlocking the fingers. - With elbows locked and your shoulders directly above the patient's sternum, compress the chest four (4) to five (5) centimetres. - During E.C.C. the hands should always remain in contact with the chest. CARDIOPULMONARY RESUSCITATION - METHOD C.P.R. involves combining the techniques of E.A.R. and E.C.C. in the correct rates and the correct ratio. Your C.P.R. should fall within the following limits over any one minute: ONE RESCUER - 8 to 10 Ventilations 60 to 75 Compressions 15 : 2 Ratio of Compressions to Ventilations During the compression phase the compression rate should fall between 80 and 90 per minute. TWO RESCUER - 12 to 15 Ventilations 60 to 75 Compressions 5 : 1 Ratio of Compressions to Ventilations Note - the compression rate should remain constant, and there should be no pause whilst ventilations are being given.	

PERFORM CARDIOPULMONARY RESUSCITATION cont.

Satisfactory

	CHECK LIST	Tick
DRABC	- A spontaneous carotid pulse should be checked for one (1) minute after commencing C.P.R. and then every two (2) minutes thereafter. If a pulse is detected then E.C.C. should be discontinued. - In two rescuer C.P.R. a change of rescuer (when necessary) should be performed during the periodic check for a carotid pulse. - In two rescuer C.P.R. rescuers should work from opposite sides. - C.P.R. should never be interrupted for more than five (5) seconds. - C.P.R. should be commenced within thirty (30) seconds of approaching casualty.	

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

5.2 POSITION A PATIENT INTO THE COMA POSITION
(For a Patient Lying on the Back)

Satisfactory

CHECK LIST	Tick
Kneel beside the patient.	
Place the patient's nearer arm, palm up, under the buttocks.	
Cross the farther leg over the nearer leg.	
Cross the patient's farther arm across the chest, so that their hand rests on the nearer shoulder.	
Support the patient's head with your hand that is nearer the head.	
Grasp the farther hip with your other hand.	
Rotate the patient towards you until he is lying on his side.	
Support the weight of the patient in this position by resting him against your knees.	
Gently lower the head by allowing the patient to roll slightly towards you, until the nearer elbow rests on the ground and supports the patient.	
Remove the farther arm from under the body, starting at the shoulder.	
Tilt the head back to ensure an open airway.	
Place the hand of the patient's arm palm downwards on the ground, with the fingers under the chin.	
Draw the upper leg up at a right angle to the body, allowing the bulk of the patient's weight to be supported.	
Ensure the patient's mouth is open	

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

5.3 POSITION A PATIENT INTO THE LATERAL POSITION

Satisfactory

CHECK LIST	Tick
- Kneel near patient's hips	
- Place patient's far arm out straight from shoulder	
- Fold near arm across chest	
- Flex near leg at knee	
- Grasp under shoulder and pelvis	
- Rotate patient away from you	
- Draw upper leg towards patient's head so knee is flexed at right angles	
- Place nearer arm across farther arm at level of elbow	
- Tilt head and support jaw	
- Turn face slightly downwards	
- Check airway breathing and circulation.	

PRACTICAL SKILL MASTERED

SIGNED .....

DATED .....

• MODULE 6

- OBJECTIVE — On completion of the training period after practising the practical skills listed below (to the satisfactory performance level as per the module skill sheets) the Brigade member will be able to apply one or more of these skills to the sections mock practical incident:

PRACTICAL SKILLS

6.1 Transfer a Patient From Bed to Wheel Chair

6.2 Prepare and apply an Improvised Cervical Collar to a Patient

6.3 Place and secure a patient to a Jordon Frame

STORES REQUIRED

- Wheel Chair
- Bed
- Blanket
- Dressing Gown
- Slippers
- Newspaper/Cardboard
- Towel
- Bandages - roller/triangular

6.1 TRANSFER A PATIENT FROM BED TO WHEELCHAIR

Satisfactory

CHECK LIST	Tick
1. Assess patients capabilities	
2. Explain the procedure	
3. Prepare patient e.g. offer bedpan place slippers and gown nearby	
4. Examine wheelchair - tyres - seat - arm rest - foot rests - brakes	
5. Position wheelchair next to bed - correct position - brakes applied - foot rests up	
6. If one person assisting :- - sit patient upright - slide legs over side of bed - put on dressing gown and slippers - help patient slide from bed to standing position - hold wheelchair steady - place patients hand on far side arm of chair - pivot patient slightly on his/ her feet into position to lower into chair - lower patient into chair - place feet on footrests - cover patients legs with blanket if necessary	
7. If two persons assisting :- - sit/lie patient along edge of bed - one assistant stands behind the wheelchair and grasps the upper body of the patient on the bed by placing his/her arms under the armpits and locking them across the chest of the patient on the bed.	

TRANSFER A PATIENT FROM BED TO WHEELCHAIR cont.

Satisfactory

CHECK LIST	Tick
- one assistant stands in front of the wheelchair and supports the thighs and legs of the patient on the bed.	
- together, gently LIFT patient off bed and lower into Wheelchair.	
- put on dressing gown and slippers	
- place feet on footrests	
- cover patient's legs with blanket if necessary.	
* NOTE:- Always keep your back straight and lift with your legs.	
8. Don't leave patient in a draught.	
9. Always put the brake on when leaving patient in a wheelchair.	

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

TRANSFER A PATIENT FROM BED TO WHEELCHAIR cont.

HELPFUL HINTS

1. When moving elderly people or people who cannot help themselves much, it is easier if you put a belt around the person's waist. This gives something to hold onto while assisting the person.

2. Be aware of people who have spent some time in a wheelchair e.g. paraplegics, multiple sclerosis victims, they are often able to do more for themselves than you might think. Always ask them what help they require from you.

3. Ramps may be necessary to move the wheelchair around the house. If ramps are used then they should be well made and checked prior to taking the person in a wheelchair down them.

6.2 PREPARE AND APPLY AN IMPROVISED CERVICAL COLLAR TO A PATIENT

A. MAKING AN IMPROVISED CERVICAL COLLAR

The function of a cervical collar is to help support and minimize movement of the neck of a patient with suspected cervical injury and to avoid further injury which may damage the spinal cord and result in paralysis. A cervical collar should always be used whenever there is the slightest possibility of injury to the cervical spine.

B. PREPARING A COLLAR

- Use something firm for the core of the collar e.g. folded newspaper or cardboard.
- Wrap the core material in something absorbent and/or soft e.g. towel
- Ensure that collar is the correct size before beginning application
  - the correct width
  - the correct length.

If you do not have anything from which to make the core, it is best to fold firmly an article of clothing or linen to the correct size and apply.

IMPORTANT: Without a firm core there is added possibility of pressure on the trachea.

PREPARE AND APPLY AN IMPROVISED CERVICAL COLLAR TO A PATIENT

Satisfactory

CHECK LIST	Tick
- Check A.B.C.	
- Prepare cervical collar	
- Inform patient of procedure	
- Remove obstructing neckware (ties, jewelery).	
- Support the head and neck from behind if possible (Using a second person when possible).	
- Mould collar firmly around neck	
- Tie collar into place with string, bandage etc.	
- Check there is no pressure on the airway	
- Check collar is firm enough to provide support and stability	
- Ensure patient comfort (to ensure effectiveness and adequate support, some discomfort is inevitable).	
- Recheck A.B.C.	

PRACTICAL SKILL MASTERED

SIGNED .....

6.3 PLACE AND SECURE A PATIENT TO A JORDON FRAME

Satisfactory

CHECK LIST	Tick
- explain procedure to patient	
- empty patient's pockets of any bulky items	
- place frame around the patient	
- slide gliders gently and carefully under the patient	
- secure gliders into the frame tightly enough to support patient's weight	
- check comfort of patient	
- tie two broad bandages together with a reef knot; (make four of these double bandages)	
- Tie the patient to the Jordon Frame with bandages at the level of :- Shoulders Hips Mid-thighs Calves	
- Tie the bandages at the side of the Jordon Frame with reef knots	
- Check that the bandages are :- Firm enough to prevent the patient slipping, Not so tight as to be uncomfortable	

PRACTICAL SKILL MASTERED

SIGNED .....

DATE .....

SECTION B

"TREATMEMT NOTES"

SECTION B COMPLETED

- SATISFACTORY STANDARD OBTAINED

SIGNED ....

DATE .....

I N D E X