CAPITA
HEALTH SOLUTIONS

Capita Health Solutions
Medics' Manual

Cover Page/Revision Status

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INTRODUCTION

This Manual has been developed by Capita Health Solutions in collaboration with the operator. Its purpose is to provide guidance for Medics on standard working practices and set protocols. It should be regarded as a working manual with the Standing Orders describing what duties the Medic is routinely expected to undertake. Clinical guidance is provided on individual health issues that the Medic may encounter with further guidance on common Public and Environmental Health issues. The role of the Medic extends beyond that which would normally be expected of a professional allied to medicine as certain activities extend beyond the commonly understood boundary for such into those normally expected of a doctor. It is therefore important to demonstrate that when a Medic is undertaking such a duty that this is done appropriately. The Guidance and protocols set out what is regarded as best practice and in following such the Medic will ensure that he is protecting both himself and his employer from any unjustified criticism. The document does not cover every scenario and when the Medic is in doubt about the appropriate course of action, the Topside Medical Service should be contacted.

The manual also details recommended pharmacy stock and medical equipment levels derived from appropriate sources including MCA, UKOOA and HSE.

Each Medic should retain an individual copy of this manual which should be signed off annually by the Company medical adviser at the annual Medic assessment where capability will be assessed in accordance with this defined guidance.

Revisions to the manual will be issued from time to time as determined by changes to company medical policy and protocol.

Revision 7: Main Amendments

New Standing Orders have been added with guidelines on maintaining boundaries, chaperoning, intimate examinations, alternative and complementary therapies.

The Standing Orders on medical record keeping have been revised to more generic guidance than specific guidance related to GP desktop.

The protocol on cardiac arrest has been modified to reflect a variety of competencies relating to advanced airway management.

POM status (reflecting US FDA classification) has been added to Formulary to assist with OHSHA injury/ illness reporting.

SECTION I EMERGENCY CONTACT DETAILS

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TOPSIDE Medical Emergency Service

Should the services of the CAPITA Health Solutions Topside Doctor be required

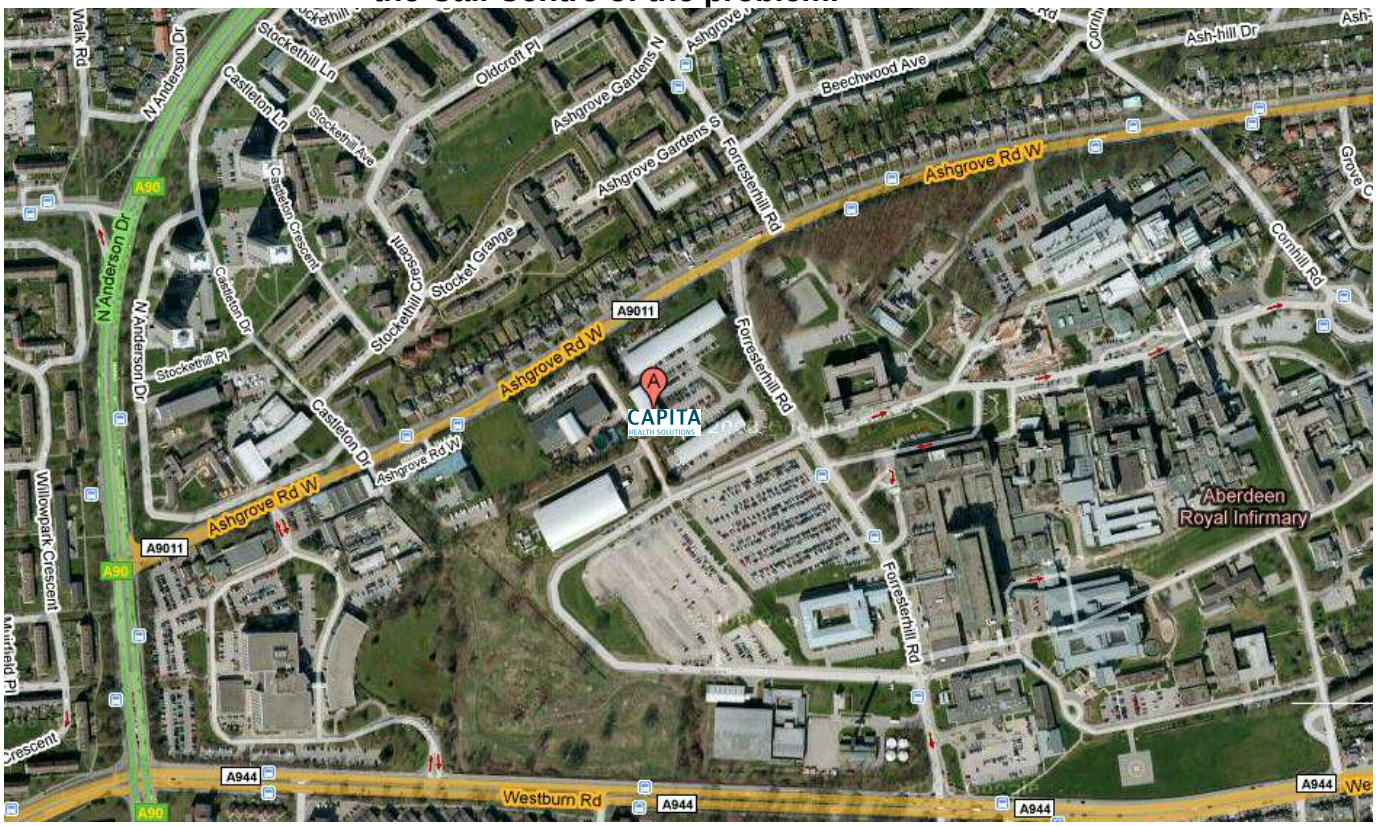
TELEPHONE

01224 895911

This is a dedicated emergency line manned 24 hours a day.

The operator will put the caller in contact with the Duty Topside Doctor.

Contact Failure: In the unlikely event of being unable to obtain a response from Topside contact number, please call 0870 162 8117 **(Colchester) to alert the Call Centre of the problem.**



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SECTION II STANDING ORDERS

1.0 NMC Code of Professional Conduct

Each Medic shall act, at all times, in such a manner as to justify the trust and confidence of patients and clients, to safeguard their interests and to enhance the good standing and reputation of Capita Health Solutions. Each Medic is accountable for his or her practice, and, in the exercise of professional accountability, shall:

1.1 Act always in such a way as to promote and safeguard the wellbeing and interests of patients/clients.

1.2 Ensure that no action or omission on his/her part or within his/her sphere of influence is detrimental to the condition or safety of patients/clients.

1.3 Take every reasonable opportunity to maintain and improve professional knowledge and competence.

1.4 Acknowledge any limitations of competence and refuse in such cases to accept delegated functions without first having received instruction in regard to those functions and having been assessed as competent.

1.5 Work in a collaborative and co-operative manner with other health care professionals and recognise and respect their particular contributions within the healthcare team.

1.6 Take account of the customs, values and spiritual beliefs of patients/clients.

1.7 Make known to an appropriate person or authority any conscientious objection which may be relevant to professional practice.

1.8 Avoid any abuse of the privileged relationship which exists with patients/clients and of the privileged access allowed to their property, residence or workplace.

1.9 Respect confidential information obtained in the course of professional practice and refrain from disclosing such information without the consent of the patient/client, or a person entitled to act on his/her behalf, except where disclosure is required by law or by the order of a court or is necessary in the public interest.

1.10 Have regard to the environment of care and its physical, psychological and social effects on patients/clients, and also to the adequacy of resources, and make known to appropriate persons or authorities any circumstances which could place patients/clients in jeopardy or which militate against safe standards of practice.

SECTION II STANDING ORDERS

1.11 Have regard to the workload of and the pressures on professional colleagues and subordinates and take appropriate action if these are seen to be such as to constitute abuse of the individual practitioner and/or to jeopardise safe standards of practice.

1.12 In the context of the individual's own knowledge, experience and sphere of authority, assist peers and subordinates to develop professional competence in accordance with their needs.

1.13 Refuse to accept any gift, favour or hospitality which might be interpreted as seeking to exert undue influence to obtain preferential consideration.

1.14 Avoid the use of professional qualifications in the promotion of commercial products in order not to compromise the independence of professional judgement on which patients/clients rely.

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2.0 Medical Confidentiality

2.1 All members of the Occupational Health team are required to maintain medical confidentiality. In the context of offshore operations, the Occupational Health team includes any physician, nurse, Medic, medical secretary or medical clerk based onshore or offshore directly linked to the provision of occupational health and the medical emergency service for that installation. When a patient or employee discusses personal medical information with a member of the Occupational health team at any time, there is an implied contract of confidentiality.

2.2 No medical details will be revealed to a third party (*other than as given below 2.3 - 2.8)* unless the patient understands the need and has freely given informed consent (preferably written) to do so. This includes information requested by legal and/or insurance officers.

2.3 In the following cases the written consent of the patient is not required, but should be obtained if possible. All such cases must be discussed with the supervising physician or emergency medical cover physician before disclosure. It may be necessary for the medical and other health professional to explain the reason for disclosure to their professional organisation or in a Court of Law.

- where required by statute
- where ordered by a Court of Law

(*Whilst consent need not be obtained, those concerned should be given prompt notice of the order should they wish to contest it).*

- where SERIOUS crime might be prevented or detected by the disclosure of personal health data to the police
- where required in the interests of national security
- where required in the interests of public health

2.4 Medical information may be used for bona fide and ethical research and for subsequent publication, provided that no individual can be identified from the material during the research or subsequently. Confidential medical information may also be used to prepare general medical reports indicating trends of illness or accidents, again provided that such reports must not identify an individual patient.

2.5 If the patient is referred by the management of an offshore installation for a medical opinion, then it must be explained to the patient why he/she has been referred to the Offshore Medic and by whom.

2.6 The OIM has the right to request information about:

* the patient's whereabouts
* the patient's fitness to work
* if unfit, the likely duration
* suitability for modified employment
* suitability to remain on the installation

together with sufficient background information to allow a management judgement to be made. The Offshore Medic has an obligation to respond to management's rightful requests.

2.7 The Offshore Medic should initiate the provision of medical information to the OIM where a medical condition might materially affect the running of the installation or safety. The Medic should discuss such cases with the company medical adviser or topside medical emergency service doctor before contacting the OIM.

2.8 There may also be some situations in which the Offshore Medic must give the OIM more information to support the logistical management of the patient, for example in an evacuation, the need for stretcher and/or escort.

2.9 The Offshore Medic must appreciate that an opinion given to management about an employee's ability to work, may affect the patient's future in terms of continuation of employment. The Offshore Medic must ensure that the patient understands this. In difficult cases, the Offshore Medic should discuss the case with the responsible medical supervisor or the emergency medical cover physician before advising management.

2.10 Medical Log. The OIM and HSE inspectors have a right to inspect the medical log, which should only contain information concerning patient attendance and disposal. Medical information normally contained in the log and forwarded to the medical adviser should be excluded from the log viewed by the OIM and HSE.

2.11 Other Medical Records. All other medical records (clinical notes, referral letters, etc.) are medically confidential with a right of access only to Occupational Health team members.

2.12 Computer Records. The Data Protection Act 1998 requires computer and written records to be registered and allows the individual to see his/her own record including medical details unless sight of them could be harmful to the patient. Requests to access the Medic's records should be made in writing to the company medical adviser.

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2.13 Referral Letters. Medical referral letters from the Offshore Medic should be sent unopened to the receiving physician marked “Medical in Confidence”. Special care should be taken with telexes/facsimiles/electronic mail, because, by their nature they are not confidential. Medical telexes/facsimiles should be marked “Medical in Confidence” and whenever possible medical details should be coded. Likewise, consultations by radio cannot be regarded as confidential.

SECTION II STANDING ORDERS

MAINTAINING BOUNDARIES, CHAPERONE POLICY, AND INTIMATE EXAMINATIONS

Maintaining Boundaries

2.14 In order to maintain professional boundaries, you must not use your position as a medic to establish or pursue a sexual or improper emotional relationship with a patient. As the role of the Medic maintaining professional boundaries at all times is paramount. Professionalism when dealing with all patients should be maintained at all times. Any sexualised behaviour is totally prohibited. Sexualised behaviour is defined as 'acts, words or behaviour designed or intended to arouse or gratify sexual impulses and desires'.

If circumstances arise in which social contact with a former patient leads to the possibility of a sexual relationship beginning, you must give careful consideration to the nature and circumstances of the relationship, taking account of the nature and duration of the previous professional relationship and whether the patient was or is particularly vulnerable. If you are not sure whether you are – or could be seen to be – abusing your professional position, you must discuss your situation with an impartial colleague, a defence body, or medical association.

It is fundamentally important to maintain a professional boundary when examining patients: intimate examinations can be embarrassing or distressing for patients. Therefore w*henever you examine a patient you should be sensitive to what they may perceive as intimate. This is likely to include examinations of breasts, genitalia and rectum, but could also include any examination where it is necessary to touch or even be close to the patient.*

2.15 Chaperone Policy

A suitable prominent sign at the entrance to the sickbay should inform visitors to '*Please feel free to request a chaperone to be present during your assessment*'. This should also be reiterated and offered before a treatment or intervention is performed.

Wherever possible, you should offer the patient the security of having an impartial observer (a 'chaperone') present during an intimate examination. This applies whether or not you are the same gender as the patient. A chaperone does not have to be medically qualified but will ideally:

- be sensitive, and respectful of the patient's dignity and confidentiality
- be prepared to reassure the patient if they show signs of distress or discomfort
- be familiar with the procedures involved in a routine intimate examination

- be prepared to raise concerns if misconduct occurs

There are situations when the medics themselves might feel uncomfortable and in such situations you should consider a chaperone attending.

If either you or the patient does not wish the examination to proceed without a chaperone present, or if either of you is uncomfortable with the choice of chaperone, you may offer to delay the examination to a later date when a chaperone (or an alternative chaperone) will be available, if this is compatible with the patients best interests.

You must record any discussion about chaperones and the outcome in the patient's notes. If a chaperone is present, you should record this and record details such as name and any relevant conversation which may have taken place. If the patient does not want a chaperone, this should also be recorded in the patient's notes and the reason if given that an offer was made and declined. Preferably this note should be signed by the patient.

2.16 Intimate Examinations

Definition of intimate examinations: An individual's perceptions of treatment/interventions performed by a Medic differs greatly from person to person i.e. a patient may consider as intimate something as simple as an examination that involves removing or lifting clothing, getting close (e.g. ophthalmoscopy), or simply touching.

As a general rule, genital or rectal examination should never be conducted by offshore medics without prior approval from a doctor.

Before conducting any physical examination and in particular any intimate examination you must;

- Give an explanation to the patient why an examination is necessary and give the patient an opportunity to ask questions;
- In the explanation state the procedure to be followed, in a way the patient can understand, so that the patient has a clear idea of what to expect, including any potential pain or discomfort which may occur during the examination;
- It is essential that the patient's permission is obtained before any examination and this is recorded in the patient's medical record that permission has been obtained;
- The patient must be given privacy to undress and dress appropriately during the examination to maintain dignity and privacy at all times. Do not assist the patient in removing clothing unless you have sought permission to do so and clarified with them that your assistance is required.

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- An explanation should always be given regarding what you are going to do before you do it and, if this differs from what you have already outlined to the patient, explain why and seek the patient's permission;
- At any stage if the patient requests a discontinuation of the examination this must be done immediately.
- All conversation during an examination must be relevant and must not include or imply any unnecessary personal/derogatory comments.

2.17 ALTERNATIVE / COMPLEMENTARY THERAPIES

The practice of any form of complementary or alternative therapy is not considered to be a part of the offshore medic's role. Capita does not support the use of the medic to practise complementary or alternative therapies. It is important to note that offshore medics may not be covered by professional indemnity or other medical insurance cover whilst undertaking such therapies.

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3.0 ***Work Schedule***

The Medic should carry out certain routine work on a regular basis. Unless the installation and operator specifies otherwise, this schedule should be followed. A check list of duties should be drawn up and when duties have been completed they should be signed off and dated. Written instructions should be drawn up to assist with the weekly checks on Medical equipment.

Daily:

Sick Bay

- Clean contaminated or dirty working surfaces, clean and (if necessary) sterilise contaminated equipment.
- The Medic should ensure that the floor (and bathroom/toilet if in use) is cleaned regularly and after contamination.
- Full waste bins should be emptied and disposable towel dispensers refilled when empty.
- Soap dispensers should be refilled when empty.

Elsewhere

- Inspect any areas of General, Occupational or Environmental Health interest on the installation and advise management appropriately. It will generally be appropriate to visit all areas of the installation at least weekly.

Weekly:

- Check all emergency medical equipment for serviceability e.g. ventilators, resuscitators, supplemental oxygen, suction units, laryngoscopes, defibrillators, ECG machine, oxygen saturation meter (see Appendix 14.0).
- Rehearse emergency scenarios with the First Aid team (see Appendix 1 for a suggested training itinerary).
- Update the first aid lists.
- Check and restock installation and lifeboat First Aid boxes. All used equipment during the week should be reported to the medic at the time of the usage. It is medic's responsibility to ensure that the First Aid box is restocked as soon as possible.
- Check and restock installation eye wash stations. Replace damaged stations. *
- Check and restock installation ear plug boxes.*
- Check controlled drugs against Controlled Drugs register. The OIM should be present at least once per trip.
- Change bed linen of any long term patient or after a patient has left.

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- Inspect all areas of the installation for occupational hazards and use of personal protective equipment.

* the person assigned to do this may vary from one installation to the next and may not be the Medic.

Fortnightly, or once per trip:

- Carry out routine environmental health inspection of galley and accommodation areas (including changing rooms, tea shacks and hand wash areas) with the Camp Boss and/or OIM/master.
- Complete the report from the above and forward copy to OIM and camp boss (keep copy in Sick Bay).
- Check expiry dates and stock levels of medicines and fluids in Sick Bay and emergency stores elsewhere and update inventory.
- Check drug refrigerator temperature using a temperature probe and record the result.
- Complete hand over notes prior to departure on field break.
- Send a copy of the sick bay log to the company medical adviser.

Monthly:

- Educate the workforce about occupational health hazards.

Three monthly:

- Clean cupboards and drawers including the drugs cupboards.
- Defrost and clean drugs refrigerator.
- Chemical and bacteriological water sampling of potable supply (more frequently if a problem). This should be done in accordance with the laboratory's recommended collection techniques.
- Ensure that the walls, ceiling and ventilation grills of the sick bay are cleaned.
- Check integrity of stretchers for deterioration and wear.

Annually:

- Legionella water sampling if required by the operator/owner.
- Servicing of all major medical and sick bay equipment, e.g., ECG, defibrillator, resuscitators etc.
- Check the medical equipment, furnishing, sundries etc., and update the inventory. Check the expiry dates of sterilised items and order replacements in good time if any are due to

time expire. Remove any equipment that has no use or value to the sickbay's operations.

SECTION II STANDING ORDERS

4.0 Stock Control and Ordering

The Medic must maintain the minimum level of stock consistent with the required level of service. The Medic should use the Capita Health Solutions Medicines Formulary and Capita Health Solutions medical equipment, furnishing and sundries inventory as a basis for ordering. These documents cover the requirements of the offshore oil industry and the maritime industry.

Expensive items (over £200) not mentioned on the formulary or inventory must be discussed with the company medical adviser before being ordered.

The Medic should refer to the latest edition (produced in January or February of each year) of the Capita Health Solutions Medicines Formulary or medical equipment, furnishing and sundries inventory before re-ordering any time-expired items. Recommended medications do change from year to year. Do not merely re-order what was there before.

Stock levels and expiry dates of all medicines should be recorded and updated as necessary once every trip. All Controlled drugs should be checked weekly and an entry made in the Controlled Drugs register at least once per trip.

A comprehensive record of medical equipment, furniture and sundries should be kept and updated annually. Some sterilised items have expiry dates and these should be checked at the same time e.g. Venflons, giving sets.

Generic names should be used where possible when ordering drugs.

All medicines should be kept in a locked Sick Bay. Within the sickbay, the medicines should be kept in locked cupboards which are clearly and logically labelled with their contents. Controlled drugs and drugs subject to abuse (e.g. Diazepam, Temazepam, and Dihydrocodeine) should be kept in a metal double locked cabinet fixed securely to a solid wall.

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5.0 Prescribing Medications

The Medic shall not issue any prescription only medication (POM) or controlled drug (CD):

1. **Unless it is indicated as appropriate in the guidance contained within this document (See Section III)**
   or

2. **Without permission from the Topside Doctor on call for the installation .**

Medications which do not fall into the above categories (i.e. non POM or CD) may be issued by the Medic provided he/she has taken into account the patient's **allergies**, **previous medical history, medications currently taken** and the **nature of the patient's work**. The latest edition of the British National Formulary (BNF) should be kept for reference purposes. The BNF is issued every March and September.

Caution should be exercised when deciding to prescribe POMs. Consideration should firstly be given to non-prescription alternatives and/or lower doses. The Medic's duty is to provide best care and that includes a duty to medicate appropriately and not to over-prescribe. When doubt exists over whether a POM or a non-POM should be administered, the Medic shall contact the Topside Doctor for guidance.

For OSHA reporting purposes it should be remembered that Co-codamol is classified as a POM in USA. Careful consideration should be adopted prior to its usage including discussion with the Topside Doctor.

The Medic shall keep details of the drug issued, number of tablets or amount of liquid dispensed, instructions for the consumption of the medicine and instructions about when the patient should return e.g. failure to improve, side-effects.

The Medic shall inform patients of significant side effects that might be expected following the consumption of any prescribed medicine such as sedation, indigestion.

The Medic shall not routinely supply medicines to employees for the purpose of treating chronic illnesses e.g. asthma. These should be supplied by the patient's general practitioner. The Medic should not order and issue medications prescribed by the patient's general practitioner. These should be obtained by the patient from a chemist. See also the paragraph below on unacceptable medicines carried by employees.

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The Medic should store certain medication brought offshore by an employee in the sick bay for his use alone (e.g. tranquillisers, hypnotics or any medications that require special storage conditions).

The Medic should ensure that any medications brought offshore by employees are compatible with safe working. (Refer to Section VII, Transocean Declaring Personal medication to the Medic Protocol). Guidance on unacceptable medicines is contained in the OGUK "Guidelines for Medical Aspects of Fitness for Work Offshore 2.21 Appendix 3 and in the BNF. The Medic should refer anyone he has concerns about to the company medical adviser.

Drugs with potent sedative qualities such as Dihydrocodeine and Diazepam should be viewed as incompatible with work offshore unless medical clearance is issued by the topside medical emergency service or the installation's medical adviser. Short acting hypnotics issued once or twice may be acceptable.

SECTION II STANDING ORDERS

6.0 Controlled Drugs and Drugs Subject to Abuse

The OIM (or his nominated deputy) and Medic should check the controlled drugs every trip for evidence of substitution, tampering or removal. Sealed packs of controlled drugs should be opened and their contents carefully scrutinised. A record of this must be kept in the Controlled Drugs register. Errors should be corrected by a single line drawn through the word rather than tippexed out etc. All time expired controlled drugs should be returned to the supplier for destruction. A record of destruction should be kept in the Controlled Drugs register every time expired drugs are disposed of.

Benzodiazepines (e.g. Diazepam, Temazepam) and strong analgesics (e.g. Dihydrocodeine) should be entered into the Controlled drugs book and a record kept of their use and disposal (disposal must be witnessed by OIM). Their stock level should be checked as for Controlled drugs.

6.2 Transportation of Controlled Drugs

The Misuse of Drugs Regulation 1973 requires that Controlled Drugs be hand carried by a responsible person. Such a person would be the OIM, his nominated deputy or the Medic.

Prior to transporting time expired controlled drugs ashore, HM Customs should be informed. In Aberdeen, fax Customs with the details on 01224 770466.

SECTION II STANDING ORDERS

7.0 Disposal of Time Expired Medicines, Clinical and other waste

7.1 Time expired CD and POM Medical products are viewed as “special waste” under the Special Waste Regulations 1996. Such medications which have not reached their expiry date, for instance medicines surplus to requirement, would not fall under this regulation and can be handled as medicines. Special waste must be packaged, transported and incinerated as specified in the regulations. This waste cannot be disposed of offshore. The transport of time expired medications ashore should be discussed with the stores or transport department of the installation. Disposal requires a specialist contractor. Time expired Controlled Drugs should still be disposed of as indicated in sub-section 6.2

7.2 POM drugs liable to abuse such as Diazepam, Temazepam (or any Benzodiazepine whether oral or parenteral) and Dihydrocodeine tab/caps must be sealed and packed away prior to return ashore in front of a witness such as the OIM. The OIM will then countersign the controlled drugs register (similar procedure to the destruction of CDs but with the medicines being sent elsewhere for destruction). The packaged drugs must be kept securely until they are actually transported ashore.

7.3 Clinical waste. Soiled dressings, swabs, and other materials contaminated with body fluids should be placed in a Yellow biohazard bag. This should be sent ashore for incineration, as this is “Special Waste”.

7.4 Disposal of sharps. Used needles, syringes and blades (Special Waste) must be destroyed by incineration. These items must be placed in a sharps box no more than 3/4 full. Do NOT attempt to resheath needles. The operator should arrange for the bins to be incinerated onshore.

7.5 Normal waste such as paper etc. should be disposed of according with the operator’s environmental policy.

SECTION II STANDING ORDERS

8.0 Emergency Response

8.1 The Medic shall survey the medical facilities, equipment, medications and personnel available and draw up a Medical Emergency Response plan. If such a plan already exists the Medic shall acquaint himself with it immediately upon arrival offshore and be prepared to make alterations if necessary. The Medic should also consider who will take over in the event of his own incapacity.

8.2 The Medic shall organise the sick bay and other related facilities so that casualties can arrive at short notice and be treated rapidly with minimal preparation.

8.3 The Medic shall ensure that all necessary telephone and fax numbers are available to him/her and to the radio room/control room. Distinction shall be made between contact numbers for the Medical adviser and the 24 hour Medical Emergency Service.

8.4 Prior to medevacing any patient the Medic shall consult the on call doctor for advice. The Medic should seek to obtain patient information before calling, per Appendix 5. Basic medical terminology should be used. A comprehensive referral letter will be sent ashore with all medical evacuations which should be marked MEDICAL IN CONFIDENCE.

8.5 The Medic shall rehearse emergency scenarios with the Emergency response teams on a weekly basis. See Appendix 1 for a suggested format.

8.6 The Medic should ensure that the offshore employees are informed how to contact the Medic in an emergency and for routine matters. The sick bay door should have the Medic's name and instructions on how to contact him/her attached to it.

8.7 Prior to evacuating a patient ashore, the Medic shall brief and equip the escort appropriately. An advanced first aider should be considered for this work.

8.8 The Medic should post the names of the first aid team outside the sick bay and in the control room and/or radio room. This should be updated every week.

8.9 Medical equipment and paraphernalia contaminated by blood or body fluids should be cleaned up as detailed in sub-section 2, Guidance on Protection against Blood Borne Pathogens. Instruments should be sterilised in sealed autoclave pouches in a wet heat steriliser as outlined in the guidance on blood borne pathogens. Increasingly, sterile disposable equipment should be used instead of reusable equipment due to problems achieving sterility.

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8.10 In cases of assault or death, the Medic should inform the OIM of the incident as soon as possible followed by the topside medical service. The police and if necessary the HSE will be contacted at an early stage by the company. Preservation of evidence is important and where possible, the scene of such an event should be sealed off and any work stopped. Witnesses should be separated. Notification of death can be carried out using the paperwork issued to the OIM. The Medic must countersign this.

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9.0 Medical records

9.1. Every consultation shall be recorded by the medic in the patient's medical record. Where paper records are still used all entries should be in ink, signed and dated at the time of the consultation. Where electronic records are used the entry should be recorded with the same approach that is required to the paper records.

9.2. Any direct quotes of the patient shall be recorded between quote marks. Any later additions to the record should be signed and dated. Errors should be stroked out with a single line and not tippexed out. **Legibility** including one's name is essential.

9.3 Data security and confidentiality of medical records is required for both electronic and paper records where company policies should be followed. Paper based medical records should be kept locked away and their contents revealed to no one but other members of the Occupational Health team without the patient's written permission or as detailed in Section 2. A similar security system is required for electronic records.

9.4 Medical log (electronic or paper). An entry shall be made in this about every consultation and a copy sent to the medical adviser at the end of every trip. If information is required by management from this log it should be anonymous so that patient confidentiality is maintained.

9.5 At employee termination or decommissioning the installation the medical records shall be forwarded by the medic to the medical adviser for secure storage.

9.6 Medical records shall be stored for at least 10 years from the date of the last entry. Occupational health records e.g. health surveillance, shall be stored for 40 years.

9.7 The medic shall record previous medical history, allergies, current medication and any relevant social and occupational history from all members of the core crew or long term contractors (> 3 trips) in their medical record. Contact details for next of kin should also be kept here.

9.8 A4 sized medical records are the preferred format for all individual clinical records.

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10.0 Occupational Health

10.1 The Medic will assist in the identification of occupational health risks which should be brought to the attention of management and/or the company medical adviser.

10.2 The Medic should carry out any relevant health screening such as checks for dermatitis. Such screening programmes should be instigated only after consultation with the company medical adviser and management.

10.3 The Medic should assist management with their obligations under the 'Reporting of Diseases and Dangerous Occurrences Regulations 1996', with which the Medic should be fully conversant. The diagnosis of an occupational illness must be made by an occupational physician.

10.4 Needle stick injuries. Any injury involving penetration of the skin with a used hypodermic needle, intravenous cannula or similar, should be reported to the topside medical emergency service immediately. Similarly contamination of an open wound or mucous membrane with blood or blood stained bodily secretion from another person should be reported. Medical evacuation for the administration of Hepatitis B immunoglobulin, anti-viral drugs and serological checks may be necessary. The patient may also need these checks. See Section III, Guidance – Protection Against Blood Borne Pathogens.

10.5 The Medic shall educate the workforce on occupational health hazards and how to prevent them on a monthly basis. This could include noise, occupational dermatitis, musculoskeletal injuries, occupational asthma, vibration white finger, stress management, workstation ergonomics, COSHH etc. General health issues should also be discussed e.g. smoking, exercise, diet, drugs and alcohol.

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Medical Evacuation

Where an individual is deemed to require additional treatment to that which can be provided offshore, or has a condition which renders him unfit for work then medical evacuation (medevac) should be arranged. Such cases should always be discussed with the Topside Doctor and the OIM (bearing in mind the constraints of medical confidentiality) before proceeding. The Topside Doctor can be contacted on **01224 895911** and will advise on a suitable destination for any case referred dependent upon the requirement for treatment. Other conditions e.g. weather may also influence where and when a medevac case can be sent.

Communication is important to allow for continuity of care. Therefore relevant clinical progress and treatment details need to be conveyed to the receiving clinician. A referral letter should accompany the medevac detailing such points. It is equally important that information regarding the progress and disposal of the case is returned to the Medic.

The Medevac Outcome Notification Fax (Part 1) (Appendix 2) should be completed and accompany the patient onshore where Part 2 will be completed by the receiving Topside Doctor.

In order to achieve a close out on all cases then all cases whether Company employee or contractor should be seen, where possible, by a Capita doctor before onward travel home. Exceptions to this may occur where the severity of the illness or injury is such that the individual goes straight to hospital. In this event, if they are not admitted overnight, they should be made aware by the Medic that they should be seen by the Capita doctor upon discharge.

The justification for seeing every case is as follows:

- The operator has a duty of care to individuals until they receive definitive medical care onshore.
- Consultation with a Topside Doctor will augment the care given to the individual and confirms that the treatment started by the offshore Medic is appropriate. This gives the Medic, operator and Capita the legal protection required and as a result the Topside Doctor then takes over the vicarious liability for the Medic's actions.
- Contemporaneous medical records are available should an individual's health deteriorate on the trip home or prior to the next trip.

Arrangements should be made with the individual so that they know whom to call when they are ready to be seen.

Following this procedure will allow feedback as to whether the injury or illness is reportable and whether the individual is fit to travel back offshore, fit for alternative duties or can now safely travel home.

SECTION III GUIDANCE

EMERGENCIES

1.0 CARDIAC EMERGENCIES

ACUTE CORONARY SYNDROMES (ACS)

SIGN Guideline "Acute Coronary Syndromes"
http://www.sign.ac.uk/pdf/sign93.pdf

Check this site regularly to ensure that the guidelines below have not changed.

Definition

ACS includes unstable angina and evolving myocardial infarction (MI), which share a common underlying pathology – plaque rupture, thrombosis, and inflammation. ACS are usually divided:

- ***ACS with ST-segment elevation*** or new onset LBBB (Left Bundle Branch Block) - acute MI or STEMI;
- ***ACS without ST-segment elevation*** – non STEMI (unstable angina or non-Q wave/subendocardial MI).

Signs and Symptoms

- ***Symptoms***: acute central chest pain, lasting >20 min, associated with nausea, sweatiness, dyspnoea, palpitations. May present without chest pain (silent MI), e.g. elderly or diabetics.
- ***Signs***: distress, anxiety, pallor, sweatiness, pulse ↑ or ↓, BP↑ or ↓, possible signs of heart failure (↑JVP, basal crackles/crepitations, etc). A low grade pyrexia may be present

Assessment

- ***Brief history:*** previous angina, relief with rest/nitrates, history of cardio-vascular disease, risk factors of ischemic heart disease.
- ***Examination:*** pulse, BP, signs of heart failure.
- ***Investigations:*** if available carry out a 12 lead ECG to confirm diagnosis and facilitate decision on thrombolysis. Check ECG for changes to T wave (either tall/hyperacute or inverted), ST segment (either elevated or depressed) and

pathological Q wave (wide/more than 1 mm or deep/ 25% of R wave). The results can be faxed to ARI coronary care unit for interpretation (in Aberdeen - 01224 685307) or emailed to ARI A&E if the installation has a contract for this service. If not contact Topside Doctor as soon as possible. If the ECG suggests STEMI, follow Thrombolysis protocol below, pg. 32.

Management

Medic should commence treatment as soon as possible. If you have time call the Topside Doctor on call and get help. If not and diagnosis seems likely proceed as follows:

- Place patient in comfortable position, normally semi-recumbent / knees supported (**W** position) on the resuscitation couch.
- Apply defibrillator leads and monitor heart rate and rhythm. This will allow rapid defibrillation if necessary.
- Start MONA (**M**orphine, **O**xygen, GT**N**, **A**spirin) as soon as possible:
  - Administer **high flow oxygen (15 l/min)** by non-rebreathing/Hudson mask;
  - Administer **GTN** by spray or tablet after BP/radial pulse has been checked and systolic blood pressure confirmed to be higher than 90 mmHg **;**
  - Administer **Aspirin**, **300mg** chewed or soluble unless known true allergy.
  - Establish IV access (antecubital fossa) and give either of the following, TITRATED against effect

    Diamorphine in initial doses of 1-2 mg IV slowly over 1 min and repeat every few minutes until the patient is pain free (up to **5mg)**

    OR

    Morphine in initial doses of 3-5 mg IV slowly over 1 min and repeat every few minutes until the patient is pain free (up to **15mg)**

    Monitor heart rate, BP and respirations.

    Have **Naloxone** to hand to counteract opiate overdosing.

    AVOID IM injections
    AVOID Cyclimorph

  Give **Metoclopramide** 10mg IV over 1 minute (take particular care with anyone under 20 years of age as they are at risk of an adverse reaction).

- Discuss the case with topside service as soon as possible. Do not medevac until you have spoken to the doctor on call. Monitor the patient constantly until medevac.

SECTION III GUIDANCE

PROTOCOL FOR ADMINISTRATION OF THROMBOLYTICS

Introduction

Thrombolysis reduces mortality from STEMI if given early. There are great advantages to the early administration of thrombolytic therapy and it is essential that administration should take place as soon as chest pain is identified as an acute myocardial infarction and the criteria for thrombolysis are confirmed. In the offshore/remote environment thrombolysis will normally be administered within the first 6 h. However, the greatest benefit is seen, if administered within 3 h. In exceptional situations thrombolysis may be used within 12 hours. The British Heart Foundation advises that the time from the onset of pain to thormbolysis should be <90 min (< 60 min if possible).

The administration of thrombolytic drug treatment requires a specific protocol for the assessment and subsequent management of the clinical situation of a suspected myocardial infarction.

Thrombolytic drugs include either tissue plasminogen activator (t-PA) or plasiminogen activator produced by recombinant technology (rt-PA). One of the latter is the thrombolytic drug Tenecteplase and it is generally approved by the offshore industry currently. Tenecteplase is easy to prepare, administered as a single IV bolus and has less reported side effects (for more information see “Tenecteplase (Metalyse)” below, pg 36).

The taking of a 12 lead ECG and transmission to a medical authority (in Aberdeen fax to ARI coronary care unit for interpretation (01224 685307) or email to ARI A&E () if the installation has a contract for this service, is an essential element of the protocol. If you don’t have this service, contact your Topside Doctor as soon as possible.

*Follow the following steps of the thrombolysis protocol*** (i**t is acknowledged that some of the following steps may be performed simultaneously):***

- Undertake an adequate history and basic observations to allow suspicion of acute myocardial infarction and commencement of management.
- Summon Medical Emergency Response Team.
- Transfer patient to Sick Bay / Weigh patient.
- Place patient in comfortable position, normally semi-recumbent / knees supported (**W** position) & administer **Oxygen** through non-rebreathing/Hudson mask 12-15 litres per minute.
- Perform a 12 lead ECG as soon as possible if available
- Administer sublingual **GTN / Aspirin** (300mg) if not contra-indicated (check BP for GTN , allergy to aspirin).
- Obtain early IV access anatomically in the anti-cubital fossae & flush it.
- Administer opiates & anti-emetics according to ACS protocol.
- Obtain the patient’s permission to fax or e-mail the ECG for interpretation:

SECTION III GUIDANCE

  - Fax to ARI coronary care unit in Aberdeen - 01224 685307;
  - E-mail to Aberdeen Royal Infirmary A&E department - ecg@arh.grampian.scot.nhs.uk).
- E-mail or fax the ECG. Do not contact the coronary unit or A&E department otherwise.
- Telephone the Topside Doctor to warn him/her that the ECG has been sent.
- Explain & obtain patient's consent to administer thrombolytic (see below "Infromed Consent", pg.36) if recommended by a medical authority (ARI coronary unit, ARI A&E department or Topside Doctor).
- Complete examination & thrombolysis check list, see "Pre-hospital Trombolysis Check List below", pg.34. Discuss results of the checklist with a medical authority (ARI coronary unit, ARI A&E department or Topside Doctor)
- Prepare for administration of thrombolytic drug in accordance with guidelines ***(do not reconstitute until given permission)***
- On confirmation that the ECG is suggestive of STEMI, the patient has symptoms suggestive of an ACS, there are no contraindications to treatment and the medical authority/Topside Doctor recommends that thrombolysis is indicated, the patient's informal consent is obtained, the patient understands all possible risks associated to the treatment, **give the thrombolytic drugs** according to the chart "Administration of Tenectaplase & Dalteparin" below, pg.37.
- Consider **medevac** options discuss with 'Topside Doctor' & OIM, ensure adequate communication is kept throughout.
- Ensure continuous monitoring - prepare referral notes
- Repeat the ECG 30 minutes after treatment.

* See also ACS Protocol above, pg 30.

CAPITA
HEALTH SOLUTIONS

SECTION III GUIDANCE

Pre-Hospital Thrombolysis Checklist

This document must be completed prior to thrombolysis. The prescribing doctor must be informed of any contraindications prior to thrombolysis. A copy of this document must be kept in the patient's medical record.

	Primary Assessment (Indications):	**YES (*Give*)**	**NO (Don't give)**
1.	Can you confirm the patient is conscious and coherent and able to understand that a clot dissolving drug will be administered? ***(Informed consent must be obtained)***		
2.	Can you confirm the patient is aged 80 or less? ***(Risk increases significantly with age)***		
3.	Can you confirm the patient has typical signs and symptoms of a myocardial infarction? (Pain - typical distribution and of 30 minutes or more duration) ***(To exclude angina and other conditions)***		
4.	Can you confirm symptoms started less than 6 hours ago? ***(Benefits of thrombolysis decrease with time)***		
5.	Can you confirm the pain built up over several minutes rather than abruptly and that breathing does not influence pain? ***(Excluding other contra-indicated conditions)***		
6.	Can you confirm the heart rate is between 40 -140 bpm? ***(Bradycardia & tachycardia may compromise the heart)***		
7.	Can you confirm the systolic blood pressure is between 80mmhg and 180mmhg and that the diastolic blood pressure is below 110mmhg? ***(There is increased risk of bleeding outside of these Parameters)***		
8.	Can you confirm the ECG shows abnormal ST segment elevation of 1mm or more in at least two standard leads or 2mm in two adjacent precordial leads (not including V1)? ***(This helps to diagnose myocardial infarction – to be confirmed by a medical authority)***		
9.	Can you confirm that the QRS width is 0.12 seconds or less and that LBBB is absent from tracing? ***(LBBB may significantly distort ST segment and mimic MI – to be confirmed by a medical authority)***		
10.	Can you confirm there is no AV block greater than 1st degree (If necessary after treatment with IV Atropine) ***(Blocks may distort the ST segment and mimic MI – to be confirmed by a medical authority)***		

SECTION III GUIDANCE

	Secondary Assessment (Contraindications):	**YES (*Give*)**	**NO (Don't give)**
11.	Can you confirm the patient is unlikely to be pregnant, nor has delivered within the last two weeks? ***(Thrombolysis will damage foetus & risk of haemorrhage after recent delivery)***		
12.	Can you confirm the patient has not had a peptic ulcer in the last 6 months? ***(To avoid haemorrhage)***		
13.	Can you confirm the patient has not had a stroke of any kind within the last 12 months and has no disability due to a previous stroke? ***(Risks are greatly increased after previous stroke)***		
14.	Can you confirm the patient has no diagnosed bleeding tendency and has had no recent blood loss (*except normal menstruation*) and is not taking anticoagulant therapy? ***(To avoid haemorrhage)***		
15.	Can you confirm the patient has not had a surgical operation or significant trauma / head injury / tooth extractions within the last 4 weeks? ***(To avoid haemorrhage from previous clots)***		
16.	Can you confirm the patient has not been treated for any serious brain condition within the last 3 months? ***(To exclude cerebral tumours)***		
17.	Can you confirm the patient has not received CPR chest compressions for a period of longer than 5 minutes? ***(To exclude chest wall trauma & subsequent haemorrhage)***		
18.	Can you confirm the patient has not been treated for liver failure, renal failure, or any other systemic illness? ***(Thrombolysis will be compromised if the drug cannot be metab*olised**)		

The questions of the primary & secondary assessment should be precise and worded carefully. A patient who is in pain, breathless and frightened may not fully understand some of the questions and this should be taken into consideration and a question re-phrased.

If in doubt relay the patient responses to Topside Doctor, make notes if applicable and take advice.

SECTION III GUIDANCE

Informed Consent:

The patient should give informed consent if their condition precludes this. The information suggested currently for pre-hospital thrombolysis is as follows:

"It is likely that you have suffered a heart attack, and the best treatment is a clot dissolving drug called Tenecteplase. The quicker you receive this drug, the lower the risk from the heart attack - which is why doctors recommend the treatment is started as soon as possible, which in your case is pre-hospital. These drugs can cause serious side effects in a small minority of patients which I can explain to you in much more detail if you wish, but the risks attached to this treatment are very much less than the likely benefit. Would you like me to give you the injection or would you like more details?"

In the event of the patient requiring more information:

"Treatment during the pre-hospital stage is a significant factor in saving lives from sufferers of heart attack. The common side effects are bleeding and stroke which may affect 1 patient in every 200. Allergic reactions are extremely rare but there are other effects that do not usually cause serious problems. Would you like me to give the injection?"

Tenecteplase (Metalyse):

Metalyse is presented as a dose of 10,000 units (50 mg). It is a white / off white powder supplied in a 20 ml glass vial with a rubber stopper and an integrated polythene reconstitution device (Bioset). It is reconstituted by using the accompanying 10 ml pre-filled syringe water for injection. Once reconstituted the preparation results in a colourless to pale yellow clear liquid.

Metalyse is incompatible with dextrose infusion solutions.

The recommended shelf life is 2 years providing it is stored below 30ºC.

Once the powder has been reconstituted from a microbiological point of view it should be used immediately. However storage times and conditions are the responsibility of the user and should not normally be longer than 24 hours at 2-8ºC.

Metalyse is administered on the basis of body weight see attached sheet for further dose information. The required dose should be administered as a single bolus over approximately 10 seconds.
Heparin should be administered immediately before tenecteplase to prevent the formation of further thrombus (see attached administration / dose sheet).

SECTION III GUIDANCE

STEPS FOR ADMINISTRATION OF THROMBOLYTIC TENECTEPLASE

Step 1: Thrombolysis is weight / dose related; therefore dosage is adjusted according to the patient's weight.
Step 2: Dalteparin is administered IV followed by a saline flush.
Step 3: Dalteparin is then administered subcutaneously.
Step 4: Tenecteplase is administered IV as a bolus within 5-10 seconds.

Patient's Weight	**DALTEPARIN SODIUM** 10,000 units/ml ampoule (for IV use) or pre-filled syringe (for SC use)	**TENECTEPLASE** 10,000 unit powder and solvent solution

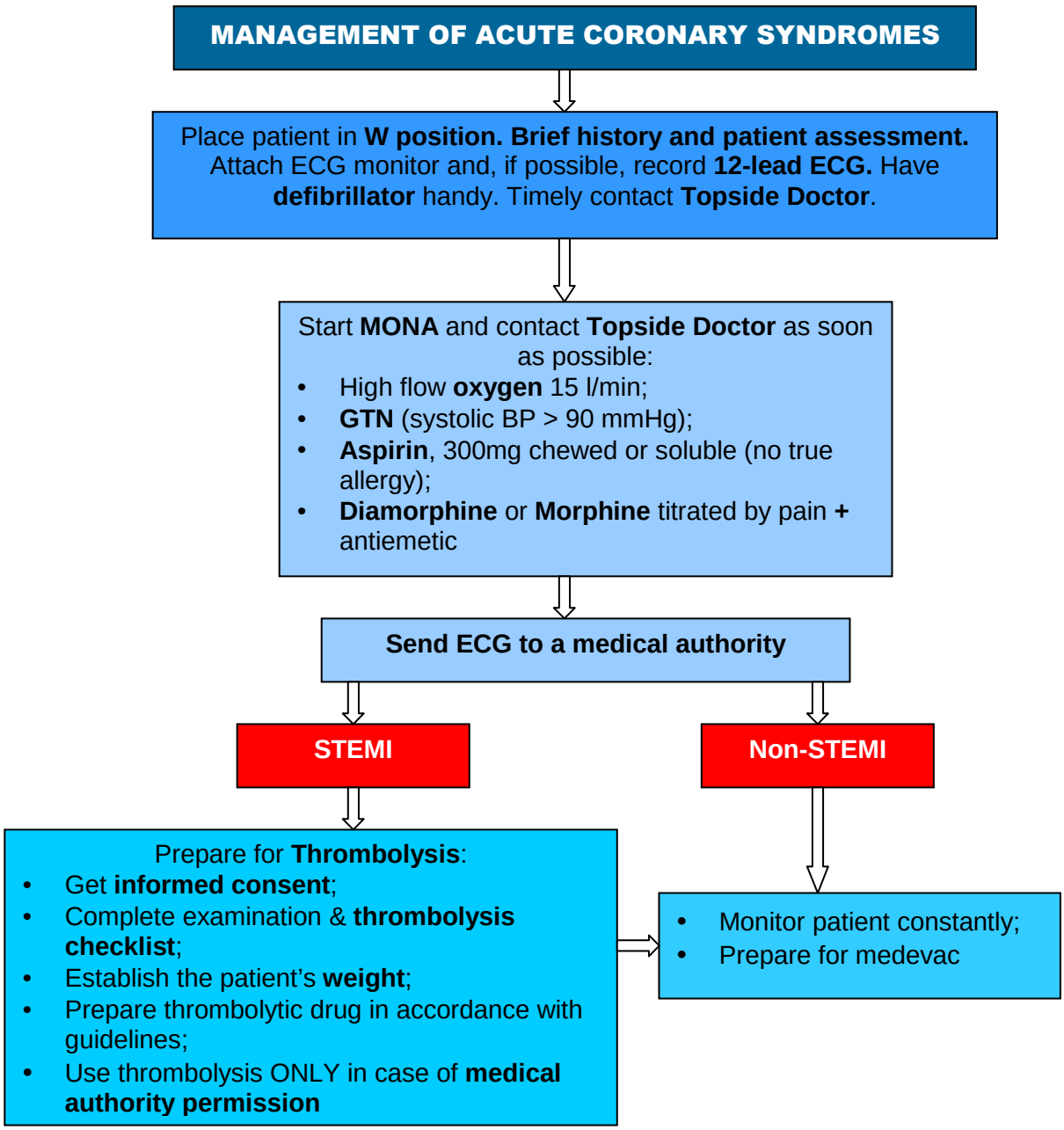
SECTION III GUIDANCE

	30 IU/kg body weight IV 90 IU/kg body weight SC **Average Dose**		for injection **Weight adjusted dose**
	Dalteparin by **IV injection**	Dalteparin by **SC injection***	Administered as single IV bolus over 5-10 secs (after reconstitution)
<60 kg (<9st 6lb)	**0.2 ml** 2,000 iu	**0.5 ml** 5,000 iu	**6 ml** 6,000 iu
60-69 kg (9st 6lb-10st 12lb)	**0.2 ml** 2,000 iu	**0.6 ml** 6,000 iu	**7 ml** 7,000 iu
70-79 kg (11st-12st 6lb)	**0.2 ml** 2,000iu	**0.7 ml** 7,000iu	**8 ml** 8,000iu
80-89 kg (12st 8lb-14st)	**0.3 ml** 3,000iu	**0.8 ml** 8,000iu	**9 ml** 9,000iu
>90 kg (>14st 2lb)	**0.3 ml** 3,000iu	**0.9 ml** 9,000iu	**10 ml** 10,000iu **(Maximum dose)**

The Dalteparin IV injection should be followed by a saline flush.

The Dalteparin SC injection should be given into the abdominal fold or into the lateral aspect of the thigh. Patients should be supine and the total length of the needle should be introduced vertically, not at an angle, into the thick part of the skin fold, produced by squeezing the skin between thumb and forefinger; the skin fold should be squeezed throughout the injection.

SECTION III GUIDANCE



SECTION III GUIDANCE

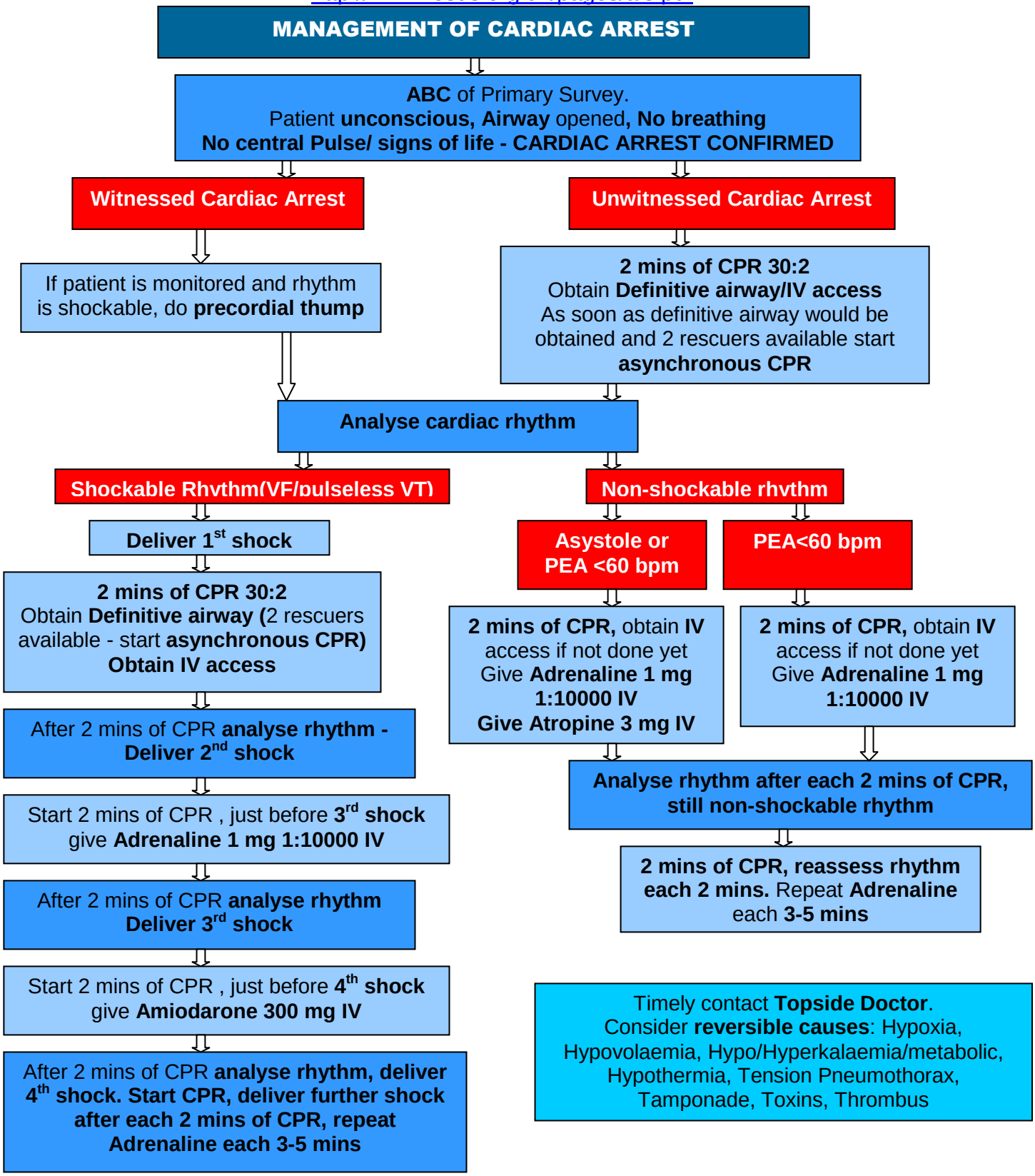
MEDICATIONS USED FOR MANAGEMENT OF ACUTE CORONARY SYNDROMES

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
ASPIRIN	Indications: Acute MI Dosage: 300 mg stat C.I.: True allergy. Cautious usage in active peptic ulcer and bronchial asthma Side Effects: Mild/infrequent. Bronchospasm, rash in hypersensitive patients. Gastrointestinal irritation Advice: Significant improvement of survival rate in MIs, so give it in any case except true allergy	Dispersible tablets 300 mg
GLYCERYL TRINITRATE	Indications: Treatment and prophylaxis of angina, treatment of AMI Dosage: Single dose – 2 puffs C.I.: Systolic BP<90 Side Effects: Headache, flushing, dizziness drop in BP Advice: Check BP or presence of radial pulse before usage	Spray 0.4 mg
MORPHINE SULPHATE/ DIAMORPHINE HYDROCHLORIDE	Indications: AMI, Acute severe pain, acute pulmonary oedema. Diamorphine Hydrochloride may be preferable to morphine sulphate in relief of pulmonary oedema in acute MI Dosage: Morphine Sulphate in initial doses of 3-5 mg IV slowly over 1 min and repeat every few minutes until the patient is pain free (up to 15mg). Diamorphine Hydrochloride in initial doses of 1-2 mg IV slowly over 1 min and repeat every few minutes until the patient is pain free (up to 5mg) C.I.: Raised intra-cranial pressure, chest injury, coma, alcoholism, head injury Side Effects: Nausea, vomiting, respiratory depression, drowsiness, dry mouth, blurred vision, constipation, dependence. Generally Diamorphine Hydrochloride has a cleaner side effect profile. Advice: Give via slow IV injection. Both medications have a rapid onset of action and can cause significant respiratory depression which can be reversed using Naloxone (should be easily to hand when administering opiates).	Morphine Sulphate - ampule 15 mg/1ml (controled drug Diamorphine Hydrochloride - ampule 10mg/1ml (controled drug)
METOCLOPRAMIDE HYDROCHLORIDE	Indications: Nausea and vomiting Dosage:10 mg over 1-2 min. In young adults 17-19 y.o. under 60 kg – 5 mg.. C.I.: Gastro-intestinal obstruction, perforation or haemorrhage. Side Effects: extrapyramidal effects (especially in young adults), hyperprolactinaemia, drowsiness, diarrhoea, depression, neuroleptic malignant syndrome, rashes, pruritus, oedema, cardiac conduction abnormalities. Advice: take particular care with anyone under 20 years of age as they are at risk of an adverse reaction	Ampoule 10mg/2ml

SECTION III GUIDANCE

CARDIAC ARREST

UK Resuscitation Council "Adult Advance Life Support"
http://www.resus.org.uk/pages/als.pdf



MEDICATIONS USED FOR MANAGEMENT OF CARDIAC ARREST

SECTION III GUIDANCE

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
ADRENALINE	Indications: Cardiac arrest. For shockable rhythms give Adrenaline just before the 3rd shock, for non-shockable rhythms use Adrenaline as soon as possible. Dosage: 1 mg 1:10000 IV bolus injection. C.I.: None in the case of emergency. Side Effects: Not applicable in cardiac arrest situations. Advice: Adrenaline should be flushed with at least 20-30 ml of sodium chloride 0,9% injection to aid entry into central circulation. Adrenaline should be repeated each 3-5 min. If IV access is unavailable Adrenaline could be used through ET tube/LMA.	Minijet 1mg/10ml Or Prefilled syringe 1 mg/10ml
AMIODARONE HYDROCHLORIDE	Indications: Treatment of refractory or recurrent VF/VT. Give Amiodarone just before the 4th shock. Dosage: 300 mg by IV bolus injection. C.I.: None in the case of emergency. Side Effects: Not applicable in cardiac arrest situations. Advice: Should be considered after Adrenaline. If patient's condition does not improve, contact Topside Doctor for advice on further doses of Amiodarone.	Minijet 30 mg/ 1ml 10ml Or Prefilled syringe 30 mg/1ml 10 ml
ATROPINE SULPHATE	Indications: Cardiac arrest with non shockable rhythms– asystole and PEA <60 bpm Dosage: 3 mg IV once only C.I.: None in the case of emergency. Side Effects: Tachycardia Advice: Give Atropine as soon as possible after Adrenaline. Use 3 ampoules of 1 mg each. 3 mg is maximal possible dose.	Ampoule 1mg/10ml

SECTION III GUIDANCE

BROAD COMPLEX TACHYCARDIA

UK Resuscitation Council Guideline "Peri-Arrest Arrhythmias" -
http://www.resus.org.uk/pages/periarst.pdf

Check this site regularly to ensure that the guidelines below have not changed.

Definition

ECG rate > 100 bpm and QRS complexes > 0,12 sec (>3 small squares on ECG done at standard rate of 25mm/sec). The commonest cause is ventricular tachycardia.

Signs and Symptoms

Signs and symptoms depend on the rate and the presence of myocardial dysfunction and may include dyspnoea, tachycardia, hypotension, chest pain, cardiac failure, pallor, sweating, cold, clammy extremities, impaired consciousness, etc. Rate-related symptoms are uncommon at less than 150 beats/min.

Assessment

- ***Brief history:*** ask about past medical history of cardiac disease, conditions leading to electrolyte imbalance, hypoxia, any medications.
- ***Examination:*** respiratory rate, pulse, BP.
- ***Investigations:***
    - Cardiac monitor/ 12 leads ECG;
    - Pulse oximetry.

Management

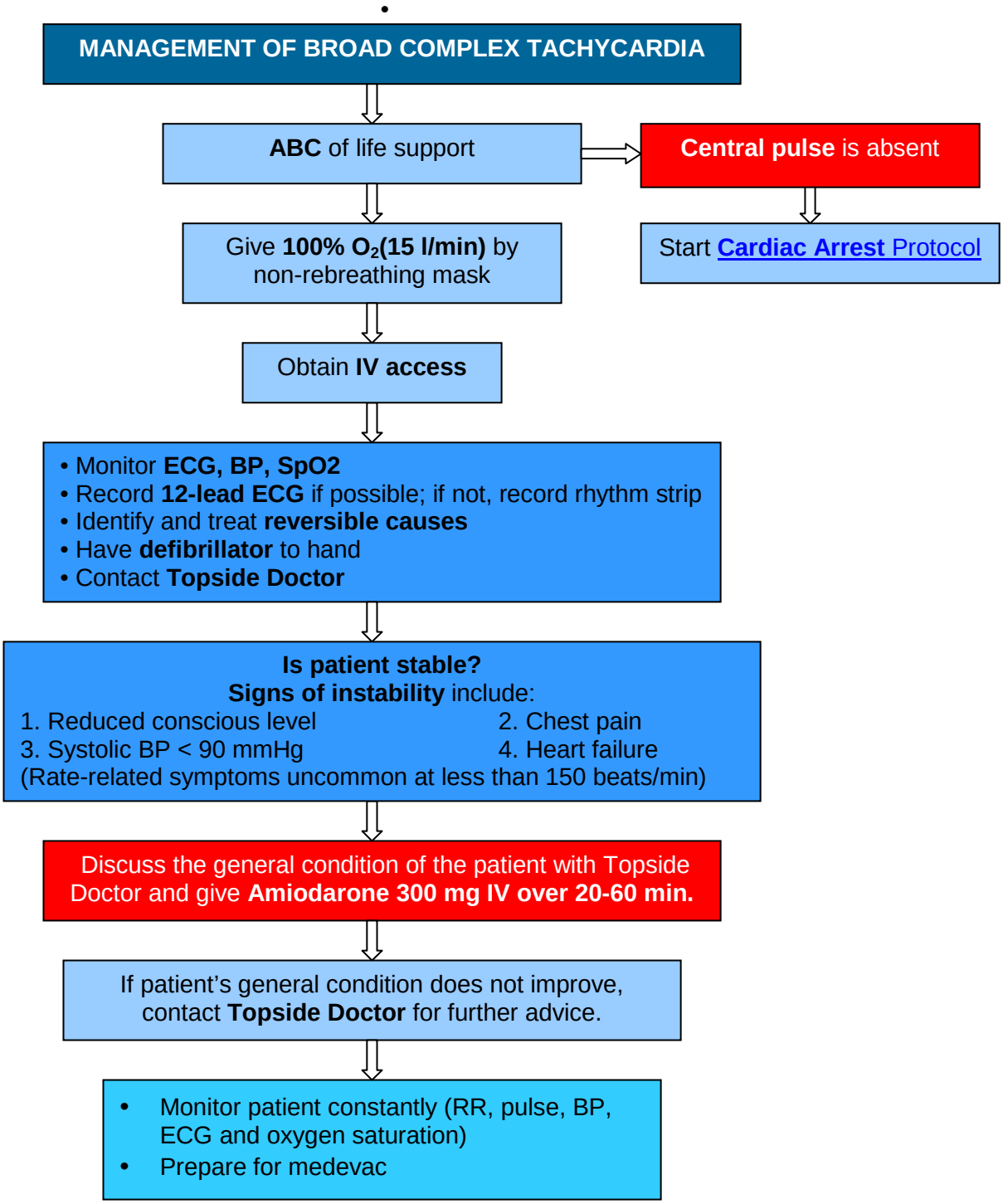
Medic should commence treatment as soon as possible:

- Call the Topside Doctor and get help.
- Assess **ABC**, if central pulse is absent use Cardiac Arrest Protocol, pg.38.
- If central pulse is present, place patient on a resuscitation coach in a comfortable position, give **high flow oxygen (15 l/min)** by a non-rebreathing/Hudson mask and monitor oxygen saturation.
- Connect the patient to a cardiac monitor and have a defibrillator to hand.

SECTION III GUIDANCE

- Obtain **IV access** and start slow Saline drip.
- Try to establish the **cause** of the tachycardia and treat it accordingly.
- Assess stability of the general condition of the patient. Signs of instability include: reduced level of consciousness, chest pain, systolic BP < 90 mmHg, heart failure.
- With Topside Doctor's advise give **Amiodarone 300 mg IV over 20-60 min**. Alternatively **Lidocaine 50 mg (2 ml of 2% solution) IV over 2 min**, repeated every 5 min up to 200 mg.
- If patient is not improving, contact Topside Doctor for further advice.
- Arrange **medevac**.
- Monitor the patient constantly (RR, HR, BP, level of consciousness, oxygen saturation, and signs/symptoms) until medevac.

SECTION III GUIDANCE



SECTION III GUIDANCE

MEDICATIONS USED FOR MANAGEMENT OF BROAD COMPLEX TACHYCARDIA

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
AMIODARONE HYDROCHLORIDE	Indications: Treatment of broad complex tachycardia. Dosage: 300 mg by IV injection over at least 3 min. C.I.: Sinus bradycardia, sino-atrial heart block, thyroid dysfunction, iodine sensitivity. Avoid IV use in severe respiratory failure, circulatory collapse (except cardiac arrest), avoid bolus injections in congestive heart failure or cardiomyopathy, pregnancy. Side Effects: Reversible corneal microdeposits (sometimes with night glare), peripheral neuro- and myopathy, bradycardia, phototoxicity, disorders of thyroid and hepatic functions. Advice: Contact Topside Doctor for advice before administration.	Minijet 30 mg/ 1ml 10ml Or Prefilled syringe 30 mg/1ml 10 ml

SECTION III GUIDANCE

NARROW COMPLEX TACHYCARDIA

UK Resuscitation Council Guideline "Peri-Arrest Arrhythmias" -
http://www.resus.org.uk/pages/periarst.pdf

Check this site regularly to ensure that the guidelines below have not changed.

Definition

ECG rate > 100 bpm and QRS complexes < 0,12 sec (<3 small squares on ECG done at standard rate of 25mm/sec).

Possible causes include sinus tachycardia (normal P wave followed by normal QRS complex), atrial flutter (saw-tooth baseline), atrial fibrillation AF (absent P wave, irregular QRS complexes), atrial tachycardia (abnormally shaped P waves, may outnumber QRS complexes), multifocal atrial tachycardia (P waves of different morphology, irregular QRS complexes), junctional tachycardia (P waves buried in QRS complexes or occurring after QRS complexes)

Signs and Symptoms

Signs and symptoms depend on the rate and the presence of myocardial dysfunction and may include dyspnoea, tachycardia, hypotension, chest pain, cardiac failure, pallor, sweating, cold, clammy extremities, impaired consciousness, etc.

Assessment

- ***Brief history:*** ask about past medical history of cardiac and endocrine diseases, hypertension, excessive stimulants use (nicotine, alcohol), conditions leading to electrolyte imbalance, hypoxia, any medications.

- ***Examination:*** respiratory rate, pulse, BP.

- ***Investigations:***

    - Cardiac monitor/ 12 leads ECG;
    - Pulse oximetry.

Management

Medic should commence treatment as soon as possible:

- Call the Topside Doctor and get help.

SECTION III GUIDANCE

- Place patient on a resuscitation coach in a comfortable position, give **high flow oxygen (15 l/min)** by a non-rebreathing/Hudson mask and monitor oxygen saturation.

- Obtain **IV access** and start slow Saline drip.

- Try to establish the **cause** of the tachycardia and treat it accordingly.

- Connect the patient to a cardiac monitor. Establish if the rhythm is regular or not (likely AF).

- If rhythm is irregular, discuss it with the Topside Doctor and with his/her advice consider **Atenolol 50 mg orally** to control the rate**.**

- If onset is <48h with Topside advise give **Amiodarone 300 mg IV over 20-60 min.**

- Topside Doctor may advice on need of anticoagulation**.**

- If rhythm is regular perform **vagal manoeuvres** (carotid sinus massage or Valsalva manoeuvre). Caution should be used if possible digoxin toxicity, acute ischaemia or carotid bruit.

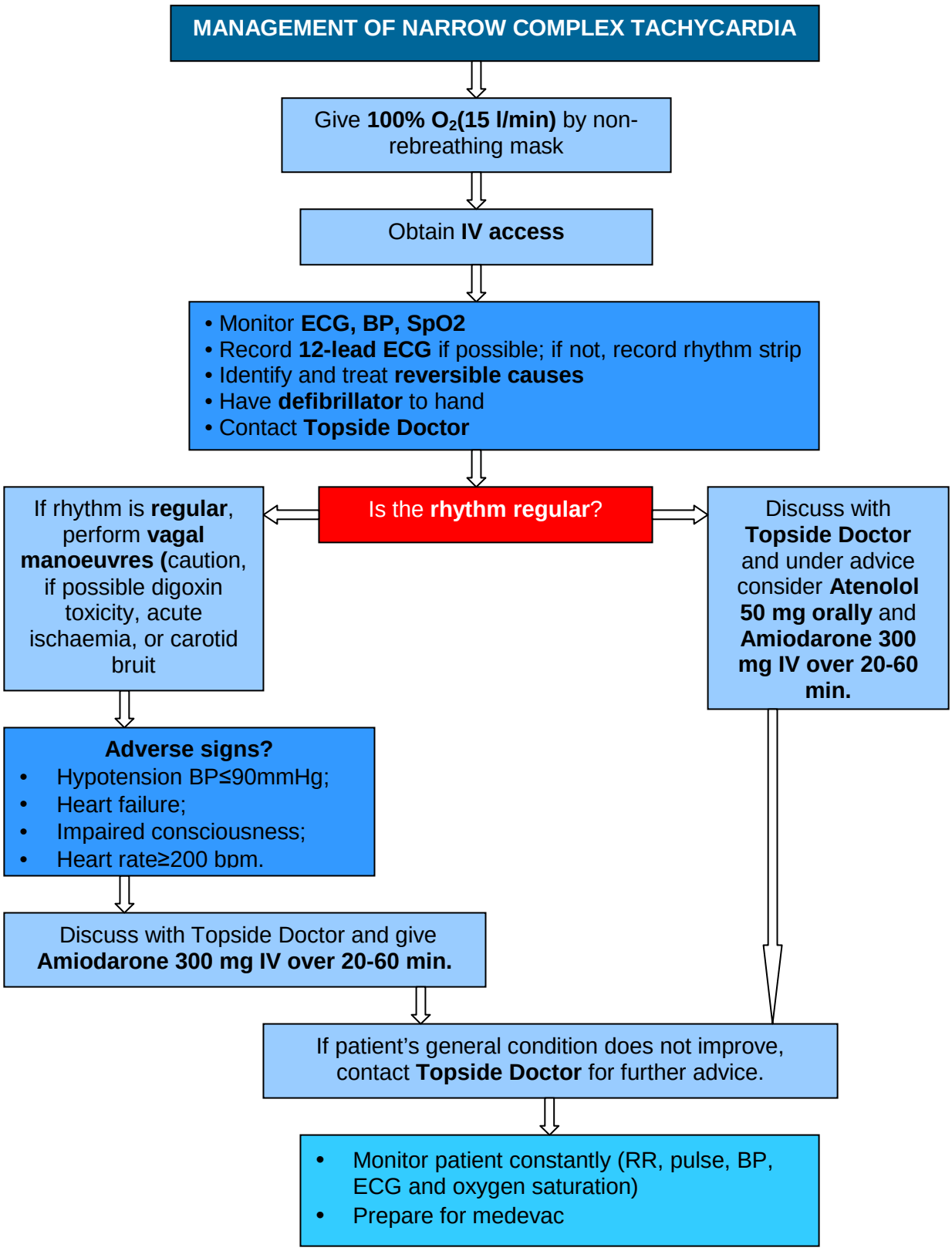
- If vagal manoeuvres are ineffective, check for any adverse signs: hypotension BP≤90mmHg, heart failure, impaired consciousness, heart rate≥200 bpm. Discuss with the Topside Doctor and under his/her advice **Amiodarone 300 mg IV over 20-60 min**.

- If patient is not improving, contact Topside Doctor for further advice.

- Arrange **medevac**.

- Monitor the patient constantly (RR, HR, BP, level of consciousness, oxygen saturation, and signs/symptoms) until medevac.

SECTION III GUIDANCE



SECTION III GUIDANCE

MEDICATIONS USED FOR MANAGEMENT OF NARROW COMPLEX TACHYCARDIA

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
AMIODARONE HYDROCHLORIDE	Indications: Treatment of narrow complex tachycardia. Dosage: 300 mg by IV injection over at least 3 min. C.I.: Sinus bradycardia, sino-atrial heart block, thyroid dysfunction, iodine sensitivity. Avoid IV use in severe respiratory failure, circulatory collapse (except cardiac arrest), avoid bolus injections in congestive heart failure or cardiomyopathy, pregnancy. Side Effects: Reversible corneal microdeposits (sometimes with night glare), peripheral neuro- and myopathy, bradycardia, phototoxicity, disorders of thyroid and hepatic functions. Advice: Contact Topside Doctor for advice before administration.	Minijet 30 mg/ 1ml 10ml Or Prefilled syringe 30 mg/1ml 10 ml

SECTION III GUIDANCE

BRADYCARDIA

UK Resuscitation Council Guideline "Peri-Arrest Arrhythmias" -
http://www.resus.org.uk/pages/periarst.pdf

Check this site regularly to ensure that the guidelines below have not changed.

Definition

Bradycardia is defined as a heart rate of < 60 beats per min. However, it is more helpful to classify a bradycardia as absolute (< 40 beats min-1), or relative when the heart rate is inappropriately slow for the haemodynamic state of the patient.

Signs and Symptoms

Signs and symptoms depend on the rate and the presence of myocardial dysfunction and may include dyspnoea, bradycardia, hypotension, chest pain, cardiac failure, pallor, sweating, cold, clammy extremities, impaired consciousness, etc.

Assessment

- ***Brief history:*** ask about past medical history of cardiac or endocrine disease, any medications.
- ***Examination:*** respiratory rate, pulse, BP.
- ***Investigations:***
    - Cardiac monitor/ 12 leads ECG;
    - Pulse oximetry.

Management

- Assess patient to determine if he/she is **unstable**. The following **adverse signs** may indicate instability:
    - Systolic blood pressure < 90 mm Hg;
    - Heart rate < 40 beats min-1;
    - Ventricular arrhythmias compromising BP;
    - Heart failure.
- If patient is **asymptomatic** and rate >40bpm, no treatment is required, although oxygen administration could be considered. Monitor the patient for adverse signs constantly.

SECTION III GUIDANCE

- If the patient is **symptomatic** or rate <40bpm, medic should commence treatment as soon as possible.

- Call the Topside Doctor and get help.

- Give **high flow oxygen (15 l/min)** by a non-rebreathing/Hudson mask and monitor oxygen saturation.

- Connect the patient to a cardiac monitor and have a defibrillator to hand.

- Obtain **IV access** and start slow Saline drip.

- With the Topside Doctor's advise give **Atropine 500 mcg (0,5 mg) IV** and, if necessary, repeat every **3 to 5 min**, to a total of **3 mg**.

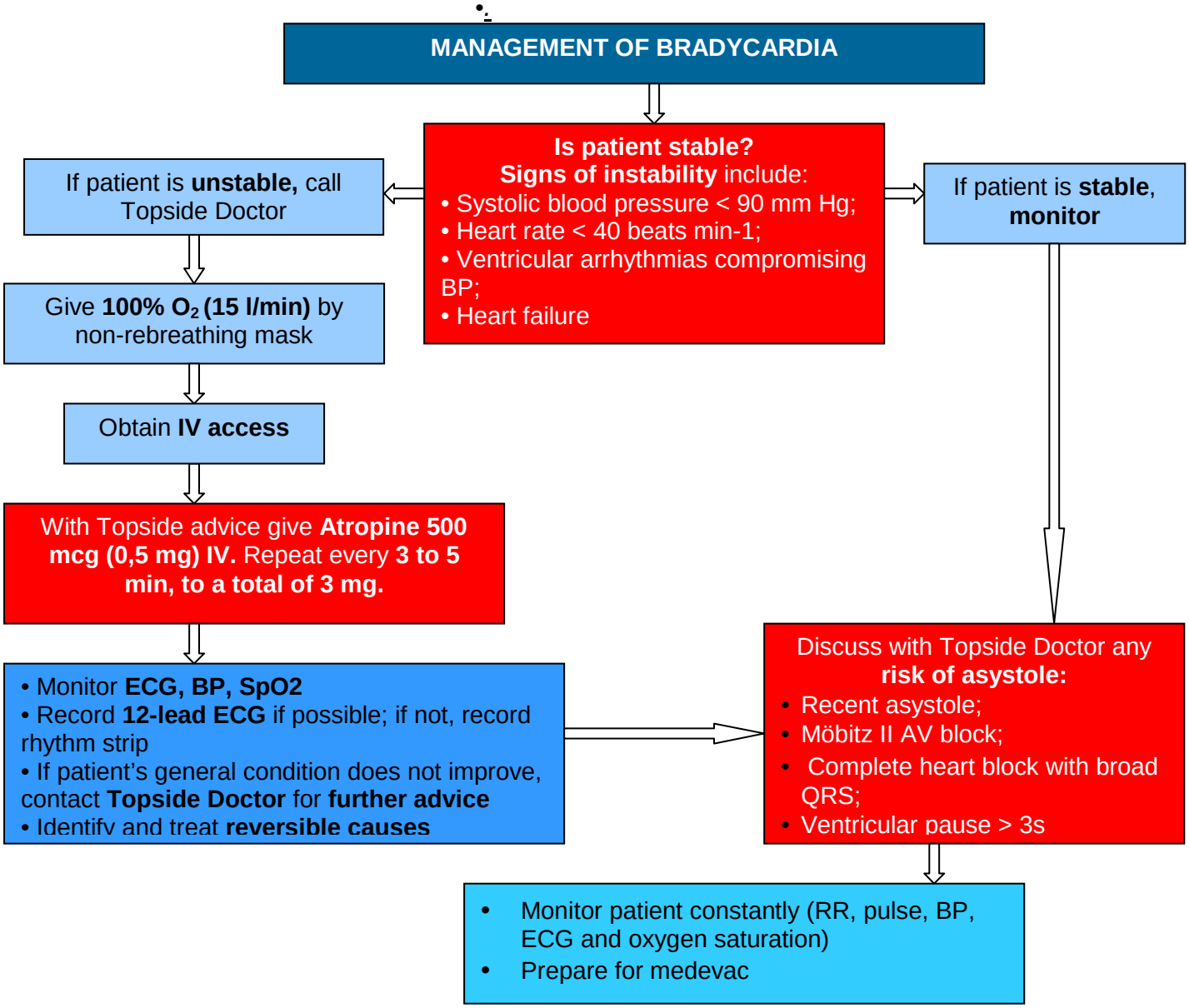
- If patient is not improving, contact theTopside Doctor for further advice. Try to establish the **cause** of the bradycardia and treat it accordingly. Consider giving **Glucagon 2-10 mg IV bolus and 5% Dextrose**, if β-blockers or calcium-channel blockers are a potential cause of the bradycardia that does not respond to Atropine.

- If a satisfactory response is achieved with atropine, or if the patient is stable, discuss with the Topside Doctor if there is any **risk of asystole**, as indicated by: recent asystole; Mobitz type II AV block; complete (3rd degree) heart block (especially with broad QRS or initial; heart rate less than 40 per min); ventricular standstill of more than 3 sec. If risk of asystole follow the Topside Doctor's advice.

- Arrange **medevac**.

- Monitor the patient constantly (RR, HR, BP, level of consciousness, oxygen saturation, and signs/symptoms) until medevac.

SECTION III GUIDANCE



SECTION III GUIDANCE

MEDICATIONS USED FOR MANAGEMENT OF BRADYCARDIA

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
ATROPINE SULPHATE	Indications: Treatment of symptomatic bradycardia Dosage: 500 mcg (0,5mg) IV C.I.: None in the case of emergency. Side Effects: Tachycardia Advice: Give Atropine as soon as possible after Adrenaline. Use 3 ampoules of 1 mg each. 3 mg is maximal possible dose.	Ampoule 1mg/10ml 10ml
GLUCAGON	Indications: Bradycardia not responding to Atropine caused by β-blockers or calcium-channel blockers. Dosage: 2-10 mg IV C.I.: Phaeochromocytoma Side Effects: Nausea, vomiting, abdominal pain, hypokalaemia, hypotension, rarely hypersensitivity reactions. Advice: Consult with Topside Doctor before using. Dextrose solution n should be used with Glucagon to prevent hypoglycaemia.	Ampoule 1mg/10ml 10ml
DEXTROSE	Indications: Treatment of profound coma and hypoglycaemia Dosage: Up to 50 ml C.I.: Impaired renal or hepatic function Side Effects: Venous irritation, thrombophlebitis Advice: Slow IV injection undiluted until patient regains consciousness.. If no Iv access, consider Glucagon.	Ampoule 20% 25ml

SECTION III GUIDANCE

2.0 MEDICAL EMERGENCIES

SHOCK

Definition

Circulatory failure resulting in inadequate organ perfusion.

Causes of shock:

- ***Pump failure:***
  - *Cardiogenic shock*;
  - *Secondary*: tension pneumothorax, cardiac tamponade, pulmonary embolism;

- ***Peripheral circulation failure:***
  - *Hypovolaemia*: bleeding – trauma, ruptured aortic aneurysm, ruptured ectopic pregnancy; *fluid loss* – vomiting, diarrhoea, burns, *pools of sequestered fluids*, eg suspension trauma, pancreatitis; heat exhaustion;
  - *Anaphylaxis;*
  - *Sepsis;*
  - *Neurogenic;*
  - *Endocrine failure;*
  - *Iatrogenic* (drugs).

Signs and Symptoms

Generally systolic BP is <90mmHg, pallor, clammy and cold skin, rapid and weak pulse, delayed capillary refill, tachypnoea, oliguria. Septicaemic shock due to endotoxin-induced vasodilation may be sudden and severe, with shock and coma but no signs of infection.

Assessment

- ***If you need to provide emergency care at the scene, check for any dangers first.***

- ***Do not delay ABC of life support if required.***

- ***Brief history:*** Recent complaints – chest or abdominal pain, vomiting, diarrhoea, fever? Recent medical history – infection, any trauma, bleeding, burns, possibility of pregnancy, if female, etc? Past medical history – cardiac, respiratory or endocrine diseases, peptic ulcer, aneurism, etc? Allergies? Occupation? Possibility of heat exposure? Any medications? Any recent travel?

- ***Examination:***

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- Start **ABCDE** of primary survey immediately and resuscitate, if necessary. Perform secondary survey as soon as possible;
- Monitor vital signs, especially pulse and BP.
- General assessment**:** cold and clammy – cardiogenic shock or fluid loss. Look for signs of anaemia or dehydration – skin turgor, postural hypotension? Warm and well perfused, with bounding pulse – septic shock. Any features suggestive of anaphylaxis – history, urticaria, angio-oedema, wheeze (see Anaphylaxis Protocol, pg.59);
- Assessment of cardiovascular system: usually patient is tachycardic (unless on β-blockers or spinal shock) and hypotension. In young and fit patient the systolic BP may remain normal. Any difference in pulse or BP between arms – aortic dissection?
- Examine abdomen: any signs of trauma, or aneurysm? Any evidence of GI bleeds? Check for melaena.

- ***Investigations:***
  - Check ECG – rate, rhythm, ischaemia;
  - Pulse oximetry;
  - Fluid balance;
  - Urinalysis.;
  - Blood glucose.

Management

Medic should commence treatment as soon as possible:

- Get help and call the Topside Doctor. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside Doctor on your behalf.

- Lay the patient down on resuscitation coach in shock position. Start ABCDE of primary survey. Assess airway, breathing and circulation immediately. If the patient is unconscious, use **basic airway** to ensure patency of airway. Protect **cervical spine** if any suspicion of trauma. Use suction if necessary. Commence **high flow oxygen (15 l/min)** by a non-rebreathing/Hudson mask or ventilate, if no adequate spontaneous breathing. Consider usage of a **definitive airway**, if required.

- Timely control any bleeding. Obtain **IV access** with 2 wide bore cannulas. If radial pulse is absent or systolic BP is below 90mmHg, give boluses of 250 ml of crystalloid titrated by radial pulse or BP. Be careful to prevent fluid overload in the case of a cardiogenic shock.

- Perform secondary survey to be able to determine cause of the shock and treat it accordingly.

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- In a severe case consider bladder catheterisation for monitoring of urine output.
- If patient is not improving, contact Topside Doctor for further advice.
- Arrange **medevac**.
- Monitor the patient constantly (RR, HR, BP, oxygen saturation, level of consciousness) until medevac.

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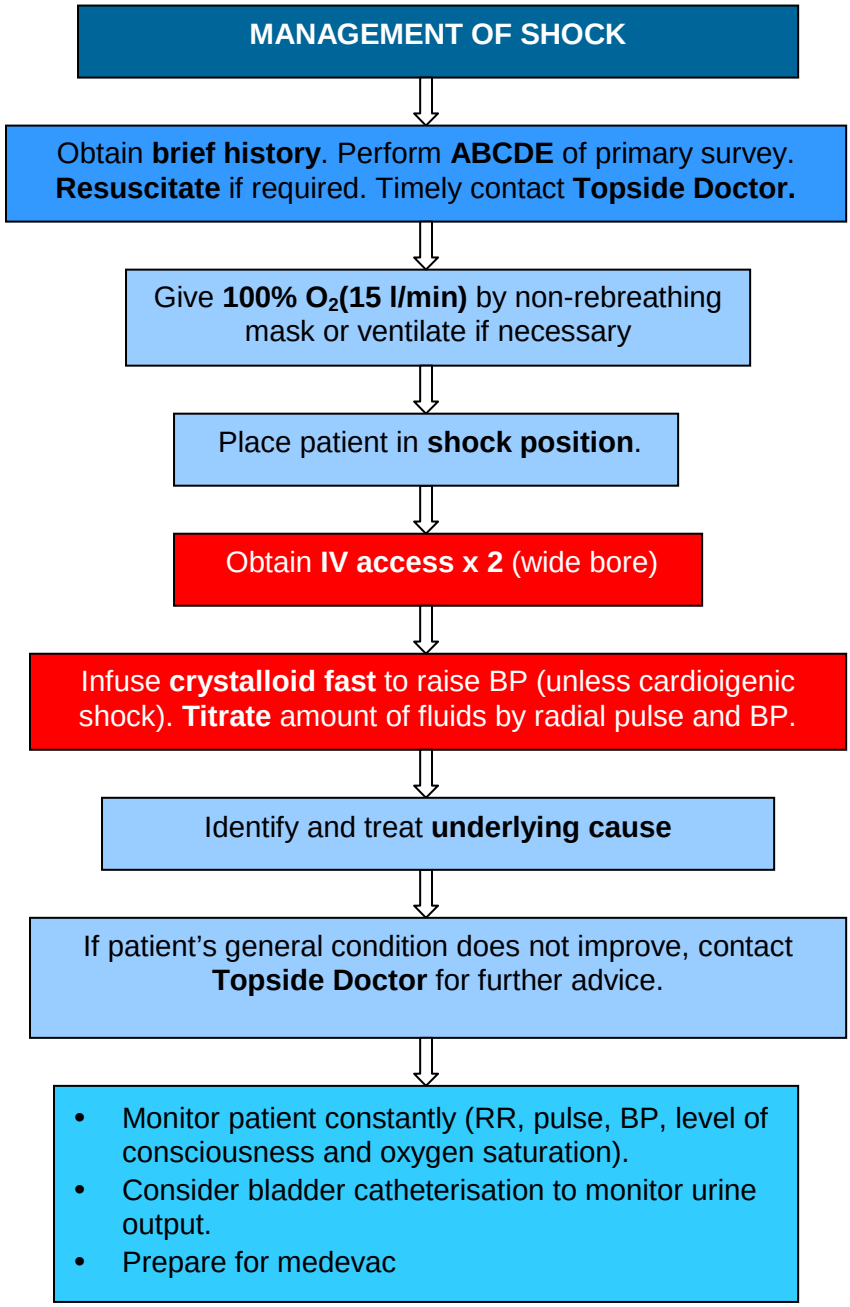
SECTION III GUIDANCE



SECTION III GUIDANCE

FLUIDS USED FOR MANAGEMENT OF SHOCK

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
0,9% SODIUM CHLORIDE OR HARTMANN'S (COMPOUND SODIUM LACTATE) SOLUTION	Indications: Rapid correction of water and electrolyte depletion associated with dehydration. Temporary increase in blood volume during haemorrhage	Fluid for infusion 500 ml
	Dosage: Boluses of 250 ml titrated by radial pulse or BP	
	C.I.: Restrict intake in impaired renal function, cardiac failure, peripheral and pulmonary oedema	
	Side Effects: Administration of large doses may give rise to sodium accumulation, oedema.	
	Advice: Consider bladder catheterisation to monitor urine output. Contact Topside Doctor for advice on ongoing treatment.	
5% GLUCOSE	Indications: Fluid replacement, especially when there is no significant loss of electrolytes.	Fluid for infusion 500 ml
	Dosage: See Sodium chloride.	
	C.I.: See Sodium chloride	
	Side Effects: Venous irritation or thrombophlebitis.	
	Advice: See Sodium chloride.	
GELOFUSINE	Indications: Plasma substitute indicated in case of low blood volume.	Fluid for infusion 500 ml
	Dosage: Initially 500-1000 ml dependent on BP, radial pulse, urine output.	
	C.I.: Should be used with caution in patients with cardiac, liver disease or renal impairment.	
	Side Effects: Hypersensitivity reactions may occur including, rarely severe anaphylactoid reactions. Transient increase in bleeding time may occur.	
	Advice: Urine output should be monitored. If possible contact Topside Doctor before administration.	

SECTION III GUIDANCE

ANAPHYLAXIS

ERC Guideline "Cardiac arrest in special circumstances. Anaphylaxis" - http://www.erc.edu/index.php/docLibrary/en/viewDoc/down=8

Check this site regularly to ensure that the guidelines below have not changed.

Definition

Anaphylaxis is a severe life-threatening, generalised or systemic hypersensitivity reaction. An anaphylactic reaction is generally defined as a severe, systemic allergic reaction characterized by multisystem involvement, including the airway, vascular system, gastrointestinal tract and skin.

Signs and Symptoms

Anaphylaxis should be considered when two or more body systems are affected (cutaneous, respiratory, cardiovascular, neurological or gastrointestinal), with or without cardiovascular or airway involvement. The speed of the onset of signs and symptoms is related to the likely severity of the ensuing anaphylaxis.

Signs and Symptoms: itching, erythema, cyanosis, urticaria, rhinitis, oedema, wheeze, laryngeal obstruction, stridor, tachycardia, hypotension, conjunctivitis, abdominal pain, vomiting and diarrhoea

Assessment

- ***Brief history:*** allergies to drugs, latex, stings, eggs, fish, peanuts, strawberries, etc
- ***Examination:*** respiratory rate, pulse, BP, signs of airway obstruction, skin.
- ***Investigations:*** pulse oximetry, cardiac monitor/ECG.

Management

- Medic should commence treatment as soon as possible. If you have time call the Topside Doctor and get help. If not, ask First Aider to contact Topside. Meanwhile, if diagnosis seems likely proceed as follows:
- Place the patient on a resuscitation couch in shock position. If very breathless sit the patient up.
- Commence **high flow oxygen (15 l/min)** by a non-rebreathing/Hudson mask. If the airway is threatened, consider a definitive airway or cricothyroidotomy.
- Remove the cause, if possible.

SECTION III GUIDANCE

- Administer

Adrenaline 0,5 mg (500 mcg, **0.5 ml**) of **1:1,000 by IM** injection.

If the patient's general condition fails to improve, repeat the dose after about **5 min**. In some cases several doses may be needed, particularly if improvement is transient.

Certain β-blockers may prevent the action of Adrenaline, **Salbutamol** is then necessary. **Salbutamol 5 mg nebulised** may be necessary if lower airway obstruction (wheeze) is present.

- Obtain **IV access**.
- Administer **Chlorpheniramine/Chlorphenamine 10-20 mg slowly IV (over 1 minute) or IM**.
- Administer **Hydrocortisone 100- 200mg slowly IV over 1 minute or IM**.
- Start **IV infusion with 0,9% saline**, e.g. 500 ml over ¼ h, up to 2 l of fluids may be needed. Titrate against radial pulse/BP.
- Monitor HR, BP and respiratory rate.
- Full **resuscitation equipment** should be available e.g. defibrillator, ventilator, suction, etc. Apply defibrillator leads and monitor heart rhythm. This will allow rapid defibrillation if necessary.
- If still hypotensive contact Topside Doctor as soon as possible.
- Arrange **medevac**.
- Monitor the patient constantly until medevac.

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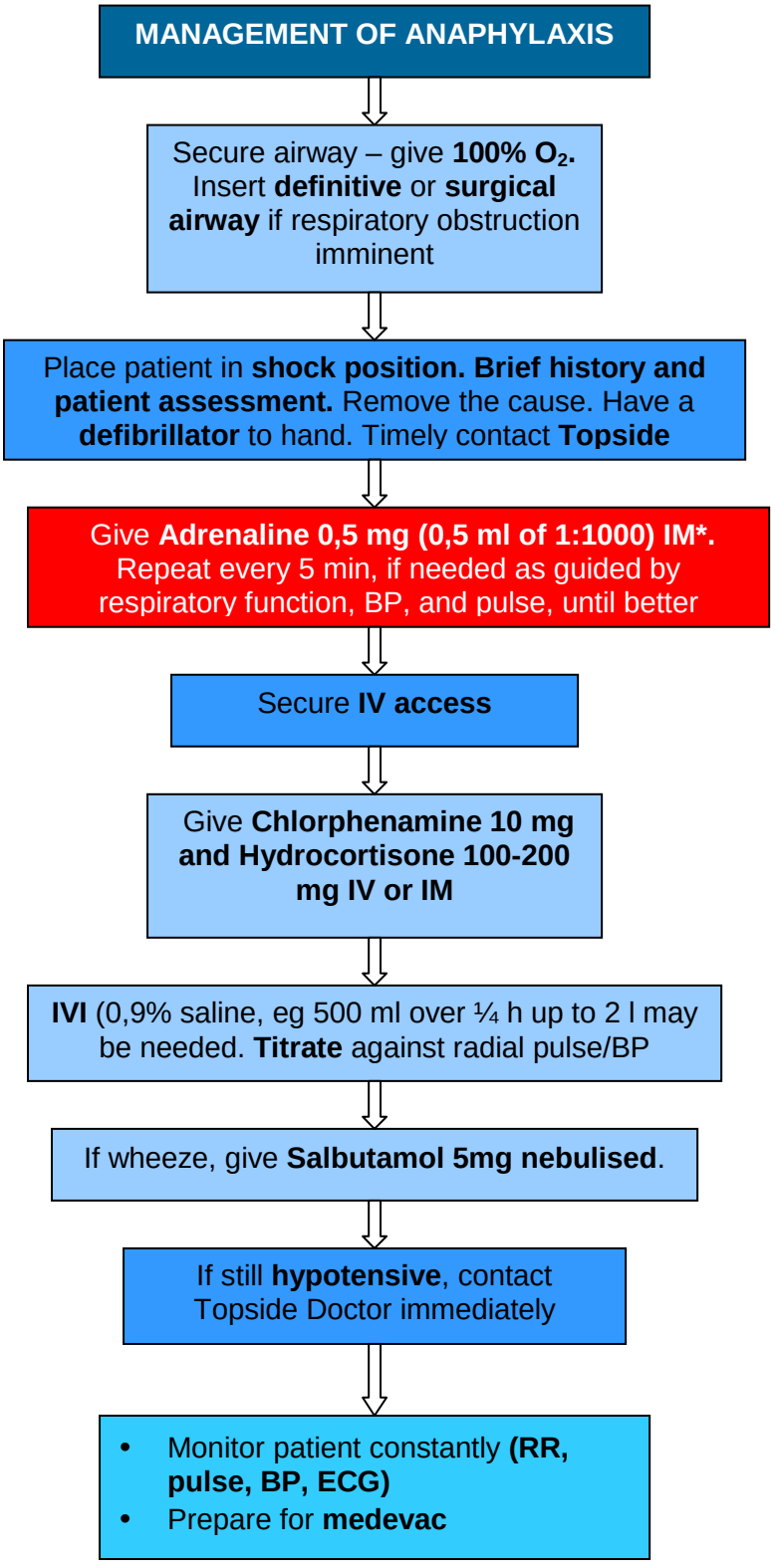

Severe anaphylaxis in patients on b-blockers may not respond to Adrenaline, contact Topside Doctor, as Salbutamol may be required.

SECTION III GUIDANCE

MEDICATIONS USED FOR MANAGEMENT OF ANAPHYLAXIS

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
ADRENALINE	Indications: Emergency treatment of acute anaphylaxis, angioedema Dosage: 0,5 mg 1:1000 IM. C.I.: No contraindications in the case of emergency. Side Effects: Anxiety, tremor, tachycardia, arrhythmia, headache, cold extremities, hypertension and pulmonary oedema. Advice: In the case of anaphylaxis use adrenaline IM. In some cases several doses may be needed, particularly if improvement is transient. IV adrenaline (in a dilution of at least 1:10,000; never 1:1000) is hazardous and must be reserved for patients with profound shock that is immediately life threatening. Contact Topside Doctor in such cases.	Minijet 1mg/ml Or Prefilled syringe 1 mg/ml
CHLORPHENIRAMINE /CHLORPHENAMINE	Indications: Emergency treatment of anaphylaxis. Dosage: 10-20 mg IV/IM. C.I.: should be used with caution in prostatic hypertrophy, urinary retention, glaucoma. Side Effects: drowsiness, palpitations, arrhythmias, dermatitis, tinnitus, hypotension, CNS stimulation. May be irritant. Advice: Give slowly over 1-2 min.	Ampoule 10mg/ml
HYDROCORTISONE	Indications: Emergency treatment of anaphylaxis Dosage: 100-200 mg IV/IM C.I.: None in the case of anaphylaxis Side Effects: Mainly with long term use: oedema, Cushing's syndrome, peptic ulcers, etc Advice: Give via slow IV injection over 1-2 min. If possible contact Topside Doctor before administration.	Ampoule 100mg/2 ml
SALBUTAMOL	Indications: Lower airway obstruction in anaphylaxis or patient on β-blockers Dosage:5 mg nebulised C.I.: Hypertension, cardiovascular disease, hyperthyroidism, arrhythmias, susceptibility to QT–interval prolongation, tachycardia. Side Effects: Tremor, headache, muscle cramps, palpitations, tachycardia Advice: in the case of patient on β-blockers, contact Topside Doctor for further advise	Nebuliser solution 1mg/ml

SECTION III GUIDANCE

ACUTE ABDOMEN

Definition

An acute abdomen is diagnosed in patients who become acutely ill and in whom symptoms and signs are mainly related to the abdomen. The term is mainly used by surgeons to describe the abdomen in which there is a severe pain. In the most of the cases the condition is life-threatening and requires laparotomy. It is important to remember about non-surgical causes of an acute abdomen.

The most common causes of an acute abdomen:

- Gastrointestinal bleeding;
- Appendicitis;
- Cholecystitis;
- Pancreatitis;
- Bowel obstruction;
- Peritonitis;
- Rupture of an organ (spleen, aorta, ectopic pregnancy, etc).

Signs and Symptoms

Signs and symptoms present would be those of underlying pathology, but the most common features of acute abdomen do include abdominal pain, guarding, and rebound tenderness.

Assessment

- ***Do not delay ABC of life support if required.***

- ***Brief history:*** Recent complaints –abdominal pain, nausea, loss of appetite, vomiting, change in bowel habit (diarrhoea, constipation), fever? Recent medical history – infection, any trauma, any acute on chronic disease, bleeding, possibility of pregnancy, if female, etc? Past medical history – cardiac, respiratory or endocrine diseases, peptic ulcer, aneurysm, etc? Allergies? Occupation? Any medications? Any recent travel?

- ***Examination:***
    - Start **ABCDE** of primary survey immediately and resuscitate, if necessary. Perform secondary survey as soon as possible;
    - Monitor vital signs, especially pulse and BP.
    - Examine **abdomen**: any signs of trauma, or aneurysm? Any evidence of GI bleeds? Check for melaena.

- ***Investigations:***
    - Check ECG – rate, rhythm, ischaemia;

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- Pulse oximetry;
- Fluid balance;
- Urinalysis;
- Blood glucose;
- Pregnancy test (if female).

Management

Medic should commence treatment as soon as possible:

- Get help and call the Topside Doctor. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside on your behalf.

- Start ABCDE of primary survey. Assess airway, breathing and circulation immediately. If the patient is unconscious, use **basic airway** to ensure patency of airway. Commence **high flow oxygen (15 l/min)** by a non-rebreathing/Hudson mask or ventilate, if no adequate spontaneous breathing. Consider usage of a **definitive airway**, if required.

- Timely control any bleeding, if possible. Obtain **IV access** with 2 wide bore cannulas. If radial pulse is absent or systolic BP is below 90mmHg, give boluses of 250 ml of crystalloid titrated by radial pulse or BP.

- Consider analgesia timely. Give **Entonox** (contraindicated in bowel obstruction)
  or
  Pethidine 50 – 100 mg IM stat or 25 – 50 mg IV by slow infusion titrating against effect (Morphine is not recommended in the case of billiary obstruction because it is causes contraction of the sphincter of Oddi)
  or
  Diclofenac/Voltarol 75 mg IM (effective in the case of renal colic).

- Consider usage of **antispasmodic** in the case of colicky pain; **anti-emetic** in the case of vomiting.

- Perform secondary survey to be able to determine cause of an acute abdomen and treat it accordingly.

- Consider **NG tube** (bowel obstruction, pancreatitis, etc) and **bladder catheterisation** (monitoring of urinary output).

- If patient is not improving, contact the Topside Doctor for further advice.

- Arrange **medevac**.

- Monitor the patient constantly (RR, HR, BP, oxygen saturation, level of consciousness) until medevac.

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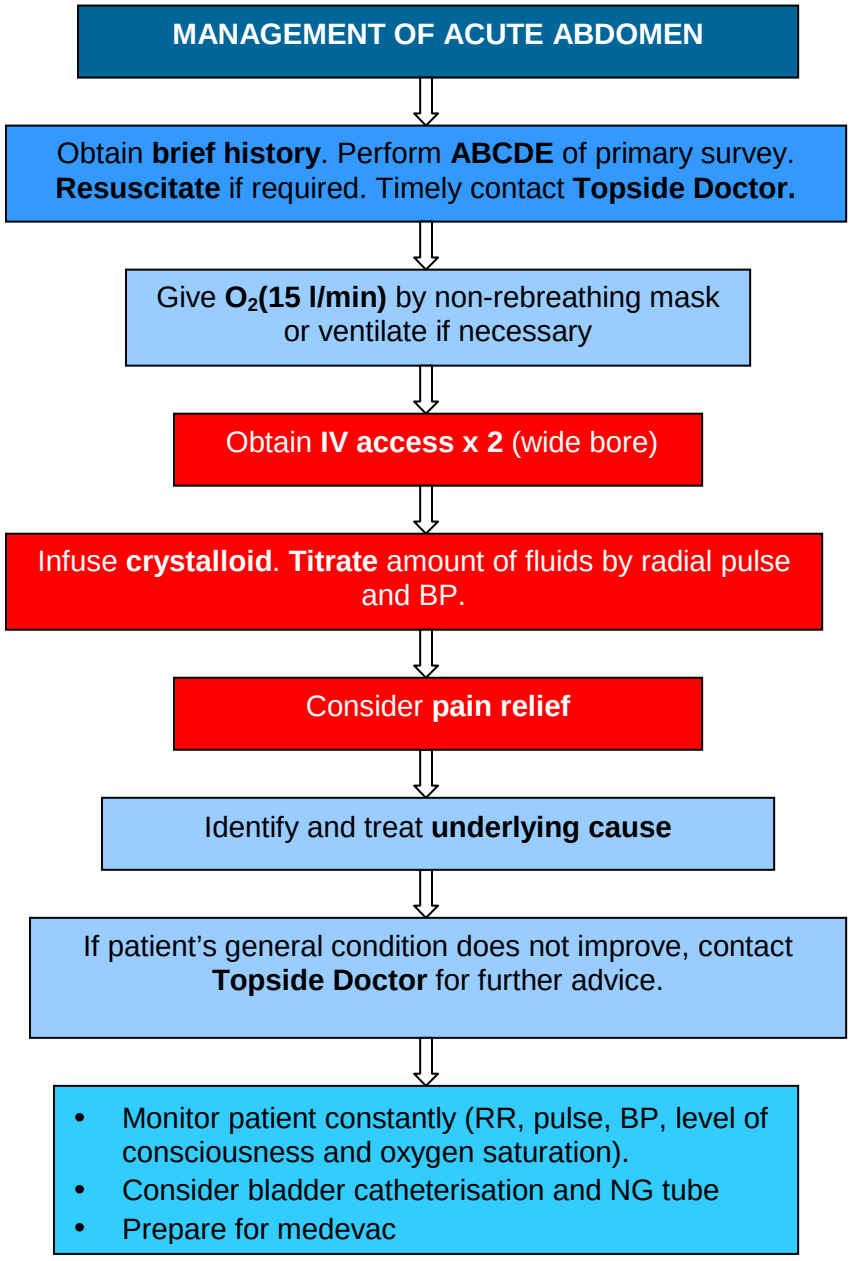

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MEDICATIONS USED FOR MANAGEMENT OF ACUTE ABDOMEN

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
0,9% SODIUM CHLORIDE OR HARTMANN'S (COMPOUND SODIUM LACTATE) SOLUTION	Indications: Rapid correction of water and electrolyte depletion associated with dehydration. Temporary increase in blood volume during haemorrhage Dosage: Boluses of 250 ml titrated by radial pulse or BP C.I.: Restrict intake in impaired renal function, cardiac failure, peripheral and pulmonary oedema Side Effects: Administration of large doses may give rise to sodium accumulation, oedema. Advice: Consider bladder catheterisation to monitor urine output. Contact Topside Doctor for advice on ongoing treatment.	Fluid for infusion 500 ml
5% GLUCOSE	Indications: Fluid replacement, especially when there is no significant loss of electrolytes. Dosage: See Sodium chloride. C.I.: See Sodium chloride Side Effects: Venous irritation or thrombophlebitis. Advice: See Sodium chloride.	Fluid for infusion 500 ml
DICLOFENAC/ VOLTAROL	Indications: Abdominal pain, renal colic Dosage: 75 mg deep IM. C.I.: NSAID (Aspirin) allergy, active peptic ulcer, proctitis Side Effects: Transient epigastric pain, GI disturbances, headache, oedema, skin reactions Advice: Treatment of choice to relieve pain of renal colic	Ampoule 75 mg/3 ml
PETHIDINE	Indications: Severe abdominal pain, renal and biliary colic Dosage: 50 – 100 mg IM stat or 25 – 50 mg IV by slow infusion titrating against effect See Sodium chloride. C.I.: Hypotension, asthma Side Effects: Constipation, respiratory depression, urinary retention, nausea, dependence Advice: Effective, rapid onset, short acting analgesic. Have anti-emetic available to reduce nausea.	Ampoule 100mg/2ml

SECTION III GUIDANCE

DIABETIC EMERGENCIES

Definition

There are 3 types of diabetic emergencies: ***Diabetic ketoacidosis (DKA), Hyperglycaemic hyperosmolar non-ketotic (HONK) coma, and hypoglycaemic coma.*** DKA and HONK coma are characterised by increased blood glucose (>7 mmol/l). Hypoglycaemic coma develops when blood glucose level drops below 3 mmol/l.

DKA mainly occurs in type 1 diabetes. It is usually characterised by 1-3 day history of gradual decline into dehydration, acidosis, and coma. Precipitants include: infection, MI, non-compliance, or wrong insulin dose.

HONK coma mainly develops in type 2 diabetes. The history is longer (e.g. 1 week), with marked dehydration and glucose >35 mmol/. Acidosis is absent. The patient is often old and presenting for the first time. Focal CNS signs may occur.

Hypoglycaemic coma has a rapid onset; it may be preceded by an odd behaviour, sweating, seizures, etc. Precipitants: insulin or oral hypoglycaemics overdose, no food intake after medication, vomiting, alcohol intake, stress, an excessive physical activity.

Signs and Symptoms

DKA – polyuria, polydipsia, lethargy, anorexia, weight loss, weakness, hyperventilation, ketotic breath, dehydration, vomiting, abdominal pain, coma.

HONK – polyuria, polydipsia, lethargy, dehydration, local CNS signs, coma.

Hypoglycaemic coma – tachycardia/palpitation, sweating, anxiety, headache, pallor and cold extremities, tremor, confusion, aggression, coma.

Assessment

- ***Do not delay ABC of life support if required.***
- ***Brief history:*** History of diabetes? Recent weight loss, polyuria, polydipsia? Abrupt or gradual onset? Any medication? Dose of insulin? Any food intake? Any vomiting? Occupation?
- ***Examination:***
  - Start **ABCDE** of primary survey immediately and resuscitate, if necessary. Perform secondary survey as soon as possible.
  - Vital signs are important – obtain full set.
- ***Investigations:***

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- Blood glucose;
- Cardiac monitor/ECG;
- Pulse oximetry;
- Urinalysis

Management

Medic should commence treatment as soon as possible:

- Get help and call the Topside Doctor. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside on your behalf.
- Start **ABCDE** of primary survey. Assess airway, breathing and circulation immediately. Use **basic airway** to ensure patency of airway. Commence **high flow oxygen (15 l/min)** by a non-rebreathing/Hudson mask or ventilate if no adequate spontaneous breathing. Consider usage of a **definitive airway**.
- Assess **circulation** and level of dehydration.
- Obtain **IV access**.
- Check **blood glucose** in all patients.
- If hypoglycaemic and conscious, give a sugary drink. If unconscious or blood glucose too low give **50 ml of 20% Dextrose** immediately. If IV access is not obtained, give **Glucagon 1 mg IM or SC.**
- If hyperglycaemic, start IV fluids (**0,9% saline**) as soon as possible, dehydration is more life-threatening than hyperglycaemia. Titrate amount of fluids according to radial pulse, BP, signs of dehydration. Contact the Topside Doctor and with his/her advice give **Insulin** 4-8 U.
- Treat **seizures** if any.
- If the patient's general condition does not improve, contact Topside Doctor for further advice.
- Arrange **medevac**.
- Monitor the patient constantly (vital signs, BM, pulse oximetry, cardiac monitor, level of consciousness, etc) until medevac.

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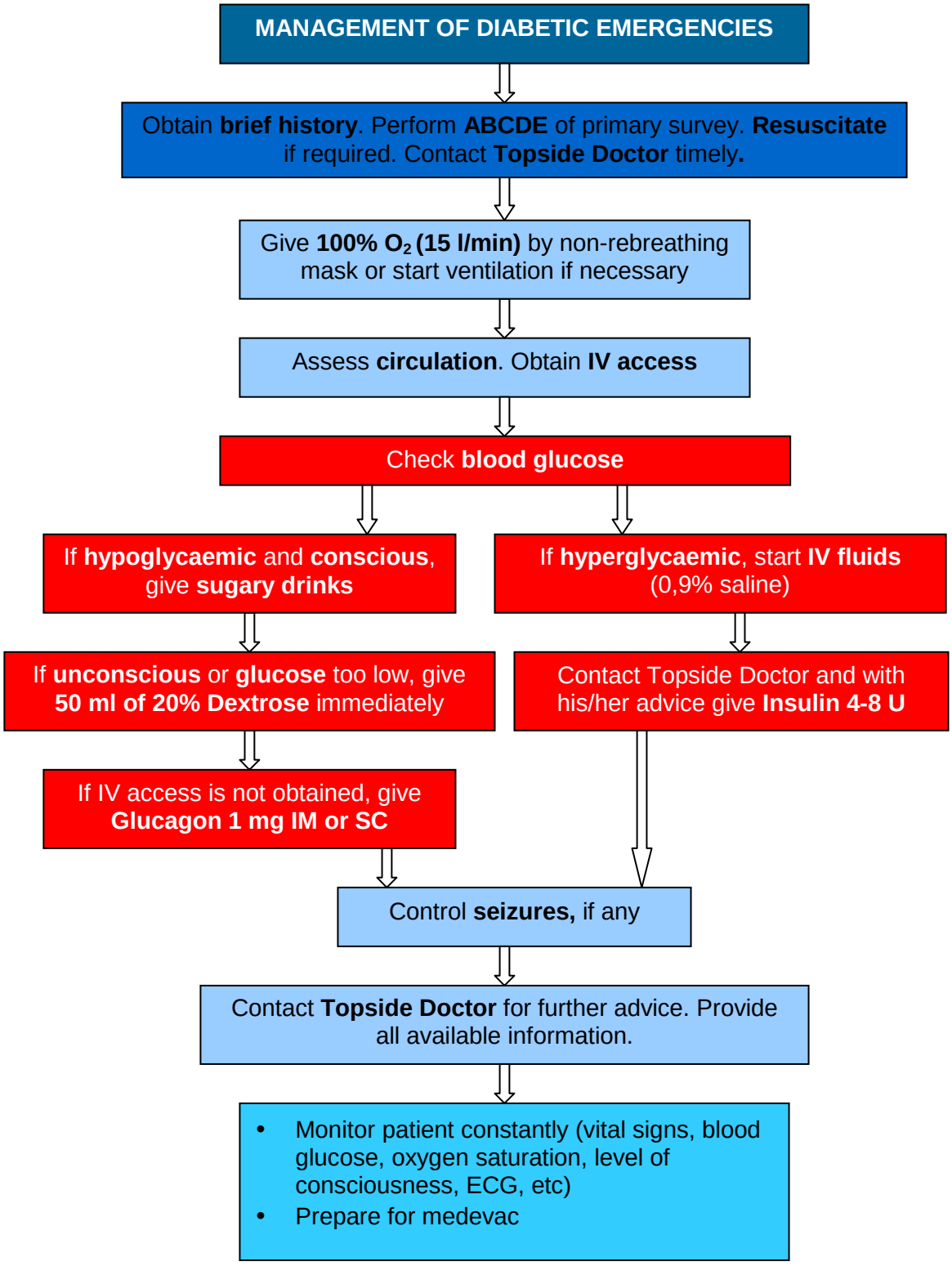

SECTION III GUIDANCE

MEDICATIONS USED FOR MANAGEMENT OF DIABETIC EMERGENCIES

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
DEXTROSE	Indications: Treatment of profound coma and hypoglycaemia	Ampoule 20% 25ml
	Dosage: Up to 50 ml	
	C.I.: Impaired renal or hepatic function	
	Side Effects: Venous irritation, thrombophlebitis	
	Advice: Slow IV injection undiluted until patient regains consciousness. If no IV access, consider Glucagon.	
0,9% SODIUM CHLORIDE	Indications: Rapid correction of water and electrolyte depletion, temporary increase in blood volume	Fluid for infusion 500 ml
	Dosage: Titrate volume of fluids according to radial pulse, BP, signs of dehydration.	
	C.I.: Restrict intake in impaired renal function, cardiac failure, peripheral and pulmonary oedema	
	Side Effects: Administration of large doses may give rise to sodium accumulation, oedema.	
	Advice: Consider bladder catheterisation to monitor urine output. Contact Topside Doctor for advice on ongoing treatment.	
GLUCAGON	Indication: Treatment of severe hypoglycaemic reactions	Ampoule 1mg
	Dosage: 1 mg SC or IM	
	C.I.: Hypersensitivity	
	Side Effects: Occasional nausea, vomiting, diarrhoea	
	Advice: Must give oral glucose rapidly on recovery as Glucagon mobilises glucose from the liver and this is metabolised quickly	

SECTION III GUIDANCE

3.0 NEUROLOGICAL AND PHYSIOLOGICAL EMERGENCIES

COMA

Definition

Unrousable unresponsiveness.

Causes of coma:

- ***Metabolic:*** legal/illegal drugs, poisoning (e.g. carbon monoxide, methanol, alcohol, tricyclics, etc), hypoglycaemia, hyperglycaemia (ketoacidotic, or HONK), hypoxia, septicaemia, hypothermia, endocrine, hepatic or renal disorders.

- ***Neurological:*** trauma, infection (meningitis, encephalitis, tropical, etc), tumour, vascular (subdural/subarachnoid haemorrhage, stroke, hypertensive encephalopathy), epilepsy (e.g. post-ictal state).

Signs and Symptoms

Unconsciousness is difficult to define but is characterised by some or all of:

- Apparently asleep;
- Eyes closed;
- Not talking;
- Not responding to instructions;
- Not moving.

Assessment

- ***If you need to provide emergency care at the scene, check for any dangers first.***

- ***Do not delay ABC of life support if required.***

- ***Brief history from eyewitnesses/bystanders:*** Abrupt or gradual onset? How found – suicide note, seizure? Any trauma? Recent complaints - headache, fever, vertigo, depression? Recent medical history – sinusitis, otitis? Past medical history – diabetes, asthma, hypertension, epilepsy? Occupation? Possibility of drug or toxin exposure? Any recent travel? Allergies?

- ***Examination:***

  - Start **ABCDE** of primary survey immediately and resuscitate, if necessary. Perform secondary survey as soon as possible. Check **AVPU** and **Glasgow Coma Scale (GCS)**;

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- Vital signs are important – obtain full set, including temperature.
- Check for any signs of trauma – haematoma, laceration, bruising, CSF leakage from nose or ears, deformity of skull, subcutaneous emphysema, Battle's sign, "panda eyes", etc. Remember the possibility of assault;
- Signs of any other diseases – diabetes, alcoholism, liver diseases, etc.
- Check skin – for cyanosis, pallor, rashes, poor turgor, needle marks.
- Smell for breath – ketosis, alcohol, etc.
- Check for signs of meningism (neck stiffness, photophobia, and Kernig's sign). Do not move neck unless trauma could be excluded. Any rashes, focal neurological signs?
- Examine pupils – PEARLA.
- Perform complete chest examination for signs of consolidation, abnormal breath sounds;
- Complete abdominal examination for bruising, peritonism, ascitis, organomegaly, etc.
- Search for any foci of infection (abscesses, bites, middle ear infection, etc);
- Check the scene (e.g. medicine bottles)

- ***Investigations:***

  - Cardiac monitor/ECG;
  - Pulse oximetry;
  - Blood glucose;
  - Urinalysis
  - Malaria test if any suspicion.

Management

Medic should commence treatment as soon as possible:

- Get help and call the Topside Doctor. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside on your behalf.

- Start ABCDE of primary survey. Assess airway, breathing and circulation immediately. Use **basic airway** to ensure patency of airway. Protect **cervical spine** if any suspicion of trauma. Use suction if necessary. Commence **high flow oxygen (15 l/min)** by a non-rebreathing/Hudson mask or ventilate if not adequate spontaneous breathing. Consider usage of a **definitive airway**. Obtain **IV access** and support circulation if required.

- Perform secondary survey to be able to determine cause of coma and treat it accordingly.

- Assess neurological status with AVPU (Alert, Responds to Vocal Stimuli, Responds to Pain, Unresponsive) and GCS. See Appendix 7 for the GCS which you may copy. Use this chart to record your observations.

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- Check blood glucose in all patients. Give **50 ml of 20% Dextrose** immediately if presumed hypoglycaemia (<3 mmol/l) (see Diabetic Emergencies Protocol, pg.67).

- Give **Naloxone 0,4–2mg IV** for opiate intoxication (may also be given IM or via ET tube). Repeat every 2 min until breathing adequate (max. dose 10 mg).

- Treat seizures if any.

- If a patient is still comatose or semi-comatose, no definitive airway was used and there is no sign of trauma, place the patient in the **recovery position** immediately after you have made your assessment.

- Contact the Topside Doctor for further advice, provide all available information, including present/past medical history, medicines, allergies, signs and symptoms, results of investigations, etc.

- Arrange **medevac**.

- Monitor the patient constantly (vital signs, pulse oximetry, cardiac monitor, BM, AVPU, GCS, etc) until medevac.

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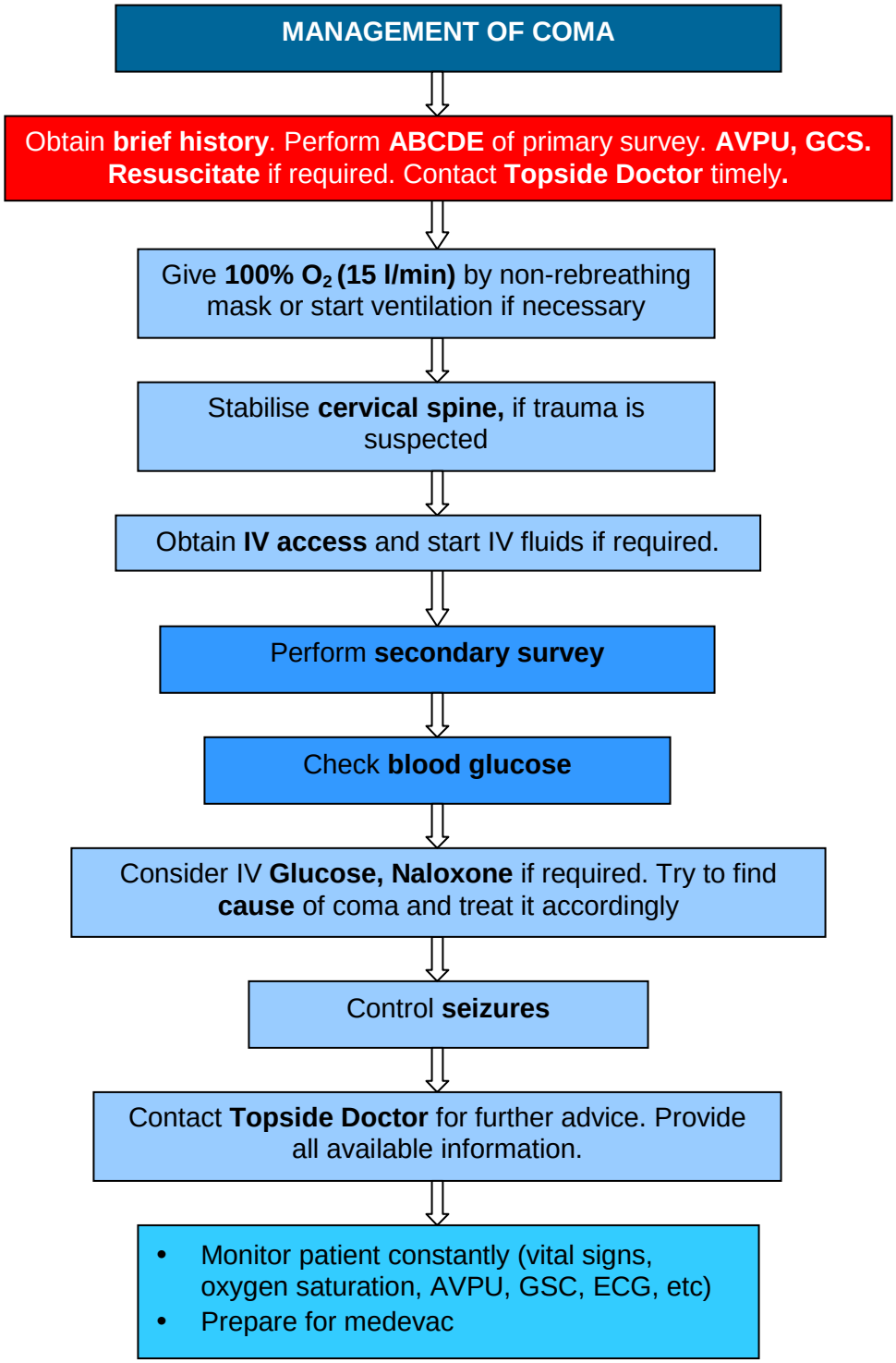

SECTION III GUIDANCE

MEDICATIONS USED FOR MANAGEMENT OF COMA

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
DEXTROSE	Indications: Treatment of profound coma and hypoglycaemia	Ampoule 20% 25ml
	Dosage: Up to 50 ml	
	C.I.: Impaired renal or hepatic function	
	Side Effects: Venous irritation, thrombophlebitis	
	Advice: Slow IV injection undiluted until patient regains consciousness.. If no IV access, consider Glucagon.	
NALOXONE	Indications: Reversal of narcotic induced coma	Ampoule 0.4 mg/1 ml
	Dosage: 0,4–2mg IV. Repeat every 2 min until breathing adequate (max. dose 10 mg).	
	C.I.: None in the case of emergency Side Effects: Nausea, vomiting, narcotic withdrawal symptoms	
	Advice: May be given IM or via ET tube. Immediately notify Topside Doctor about suspicion on narcotic intoxication	

SECTION III GUIDANCE

ACUTE AGITATION

Definition

A patient who is violent or dangerously agitated, will pose a danger to himself, others and the installation. Rapid action is thus necessary.

Causes of acute agitation:

- Toxic Confusional State (Delirium) - alcohol (Delirium Tremens), abuse of prescribed drugs: (e.g. sleeping pills, antidepressants, steroids, digoxin), Illegal drugs: (intoxication or withdrawal), physical cause (e.g. infection, head injury, post-epileptic, hypoglycaemia);
- Anxiety States (Phobic Anxiety/Panic Disorder);
- Mood Disorders (Mania);
- Adjustment disorders (stress related).

Signs and Symptoms

- *Delirium*: impairment of consciousness or attention (clouding to coma), short term memory loss, disorientation, hypo/hyperactivity, disturbance of sleep pattern, emotional upset (fearful/perplexed), hallucinations (visual, tactile most common), delusions (often paranoid).
- *Anxiety States*: physical (palpitations, chest pain, sweating, hyperventilation, muscle twitching, choking, tremor), psychological (fear, feeling of unreality, belief will die or go mad).
- *Mania*: grandiose, overactive, no need for sleep, pressure of thought & talk, irritable, worse if no insight may be psychotic, disinhibited.

Assessment

- ***Assess risk of harm to others or person (risk of suicide).***

- ***Brief history:*** Determine if considering self harm/suicide - what are these thoughts? Ask work colleagues about the patient's recent behaviour. Any recent complaints – chest or abdominal pain, vomiting, diarrhoea, fever? Recent medical history – infection, any trauma? Past medical history – any history of psychiatric problems, family history, any recent stress? Any medications? Any possibility of alcohol or drug abuse?

- ***Examination:***
  - Create an environment where information can be disclosed. Remain courteous and non-threatening, but be honest and direct.
  - Listen to the person in a non-judgmental way. Being listened to can be very therapeutic.
  - Clarify and address what the person sees as the major issues first.

SECTION III GUIDANCE

- Start **ABCDE** of primary survey immediately and resuscitate, if necessary. Perform secondary survey to determine any physical cause.
- Monitor vital signs.

- ***Investigations***
  Should be performed especially if physical cause is suspected:.
  - Check ECG;
  - Pulse oximetry;
  - Fluid balance;
  - Blood glucose.

Management

Medic should commence treatment as soon as possible:

- Get help and call the Topside Doctor. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside on your behalf.

- Speak to the patient on your own and try to defuse the situation. Do not be condescending. Be calm and non-judgemental. Leave the door open with help outside if you are concerned for your own safety.

- If toxic confusional state, try to determine the **cause** and treat accordingly after discussion with the Topside Doctor. If phobic, try to help through episode, prevent recurrence. If hyperventilation is present, let the patient breath in a paper bag.

- If the patient is dangerously agitated, get the OIM's consent to restrain him/her if necessary. If you need to restrain the patient, marshal 6 first aiders to help you. Assign each person a limb and the trunk to hold. Look after the patient's head and airway yourself. Try to ensure the patient's possessions are not damaged. Do NOT sit on the patient's chest (risk of asphyxia).

- Once the patient is restrained or has calmed down, you should be able to speak to the Topside Doctor. The Topside Doctor may instruct you to give :

Haloperidol 1.5 – 4.5mg or **Diazepam 10mg** or **Chlorpromazine 25mg orally**
Or
Haloperidol 5-10mg IM or **Diazepam 10mg IM/IV**

- If patient is not improving, contact Topside Doctor for further advice.

- Give **Benzatropine 1-2 mg IM**, if the patient suffers an oculogyric crisis (The Topside Doctor will confirm diagnosis of this condition).

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- Monitor the patient's vital signs every 10 min if the patient goes to sleep or becomes drowsy. If the patient becomes very sleepy, place him/her in the recovery position and ensure he/she doesn't inhale vomit.

- Ensure that resuscitation equipment (defibrillator, suction, IV giving sets) is near at hand. Respiratory arrest is possible after the administration of the above medicines.

- Arrange **medevac with three first aiders** to accompany the patient and doctor(s) ashore.

- Monitor the patient constantly (RR, HR, BP, oxygen saturation, level of consciousness) until medevac.

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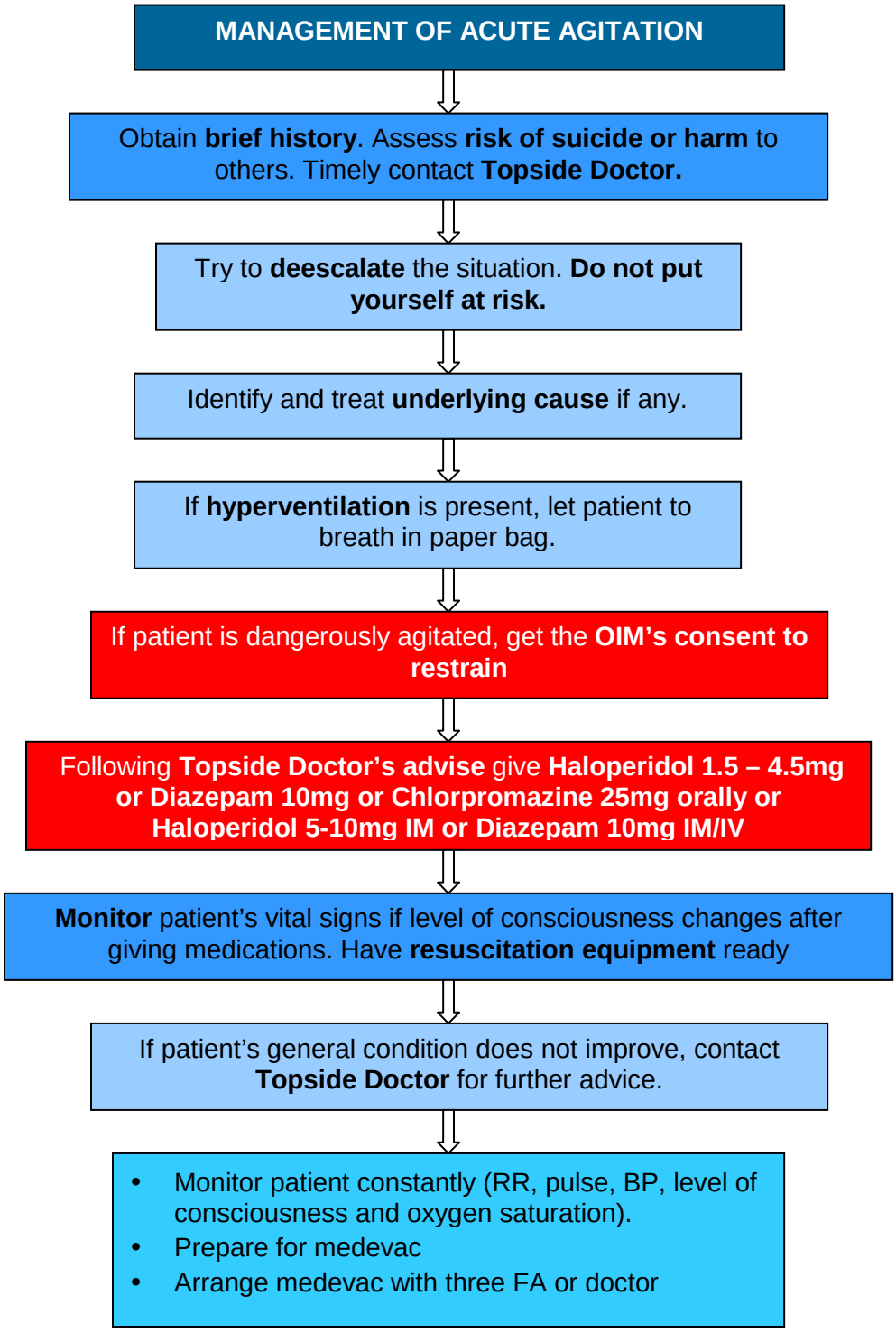
SECTION III GUIDANCE



SECTION III GUIDANCE

MEDICATIONS USED FOR MANAGEMENT OF ACUTE AGITATION

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
HALOPERIDOL	Indications: Major sedative to be used in cases of acute agitation due to toxic confusional state, anxiety states, mood disorders, adjustment disorders, when the patient presents a risk to himself or others Dosage: 1,5-4,5 mg orally or 5-10 mg IM C.I.: Not to be used in conditions related to alcohol abuse. May be contraindicated in comatose states, CNS depression. Best avoided during pregnancy unless essential. Should be used with caution in patients with hepatic or renal impairment, epilepsy, cardiovascular disease. Side Effects: Extrapyramidal symptoms (tremor, dystonia, restlessness, involuntary movements), anaphylaxis, hypotension, urinary retention, neuroleptic malignant syndrome (hyperthermia, fluctuating level of consciousness, muscular rigidity, autonomic dysfunction) Advice: Only to be used following Topside Doctor's advice. Monitor vital signs after the medication.	Tablets 1.5mg Or Ampoule 5 mg/ml 1ml
DIAZEPAM	Indications: Sedation in cases of acute agitation. See Haloperidol. Dosage: 10 mg IM/IV. C.I.: Respiratory depression Side Effects: Respiratory depression, drowsiness. Advice: Only to be used following Topside Doctor's advice. In the case of IV infusion give slowly at least over 2-3 min. Monitor respiratory function and level of consciousness after medication.	Tablets 5mg Or Ampoule 5 mg/ml 2ml
CHLORPROMAZINE HYDROCHLORIDE	Indications: Short-term management of severe anxiety, psychomotor agitation, excitement, and violent or dangerously impulsive behaviour. Dosage: 25 mg orally C.I.: See Haloperidol. Side Effects: See Haloperidol Advice: See Haloperidol	Tablets 25 mg

SECTION III GUIDANCE

CONVULSION

Definition

Convulsions/Seizures/Fits are episodes during which there is a disturbance of the function of the brain, which may be manifested as abnormality of motor activity, behaviour, sensation, consciousness or of autonomic function.
The causes are very similar to those for Coma (See Coma Protocol, pg.71).
Status epilepticus means seizures lasting for more than 30 min, or repeated seizures without intervening consciousness.
Alcohol withdrawal is a recognised cause in those who have recently travelled offshore.
Insulin dependent diabetics may be having a hypoglycaemic episode – check the blood sugar level and if abnormal hypo/hyperglycaemia protocol should be followed (See Diabetic Emergencies Protocol, pg.67).

Signs and Symptoms

Generalized seizure is characterised by a sudden loss of consciousness followed by muscle rigidity, apnoea and jerking of the limbs for a few minutes due to abnormal electrical activity in the brain. Afterwards the patient is very drowsy and disorientated for 30 min or so.
A seizure can also be as subtle as brief pauses, e.g. patient may suddenly stop talking in midsentence, then carry on where left off; marching numbness of a part of the body; a brief or long term loss of memory; sparkling or flashes, sensing/discharging of an unpleasant odour, a strange epigastric sensation or a sensation of fear, etc. Therefore seizures are typically classified as motor, sensory, autonomic, emotional or cognitive.

Assessment

- ***Brief history:*** Try to obtain a detailed description from a witness of “the fit”. Any recent complaints – headache, vomiting, diarrhoea, fever? Recent medical history – infection, any trauma, any exposure to toxins? Past medical history – any history of epilepsy, diabetes? Any medications?

- ***Examination:***
  - Start **ABCDE** of primary survey immediately and resuscitate if necessary. Perform secondary survey to determine any trauma, signs and symptoms of any disease that might be the cause of the seizure.
  - Monitor vital signs.
  - Check for any medical alerts.

- ***Investigations:***
  - Blood glucose;
  - Pulse oximetry;
  - Check ECG/cardiac monitor.

SECTION III GUIDANCE

Management

Medic should commence treatment as soon as possible:

- Get help and call the Topside Doctor. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside on your behalf. Ask eyewitnesses what happened, check past medical history (epilepsy, diabetes, etc) and for any medical alerts ensuring this information is passed to the doctor.

- Start **ABCDE** of primary survey, resuscitate if necessary. Try to prevent trauma. Protect the head as best you can but do not attempt to restrain the limbs. Usually fits lasting 5 min or less require no treatment.

- If the patient has a prolonged seizure, ensure and maintain a **clear airway** (remove false teeth if poorly fitting; consider suction if necessary; insert an oral/nasal airway; use a definitive airway, if required). Give **100% oxygen 12-15 l/min**.

- If the patient does not stop fitting, it would be best to speak to the Topside Doctor before starting any treatment. If it is not possible, you should administer **Diazemuls (Diazepam) 10 – 20 mg IV slowly (5 mg/min)** or **Diazepam 10mg rectally** (special applicator is necessary). Hypotension and apnoea are potential side effects of Diazepam.

- Ensure that **resuscitation equipment** (ventilation adjuncts, defibrillator, suction, IV giving sets) is at hand.

- Monitor RR, BP, HR and level of consciousness.

- Following cessation of the convulsion place the patient in the **recovery position**.

- If the patient is not improving, contact the Topside Doctor for further advice.

- Check **blood glucose**. If hypoglycaemia is present give **20% Dextrose 50 ml.**

- Try to determine any cause of seizure and treat it accordingly.

- Arrange **medevac**.

- Monitor the patient constantly (RR, HR, BP, oxygen saturation, level of consciousness) until medevac.

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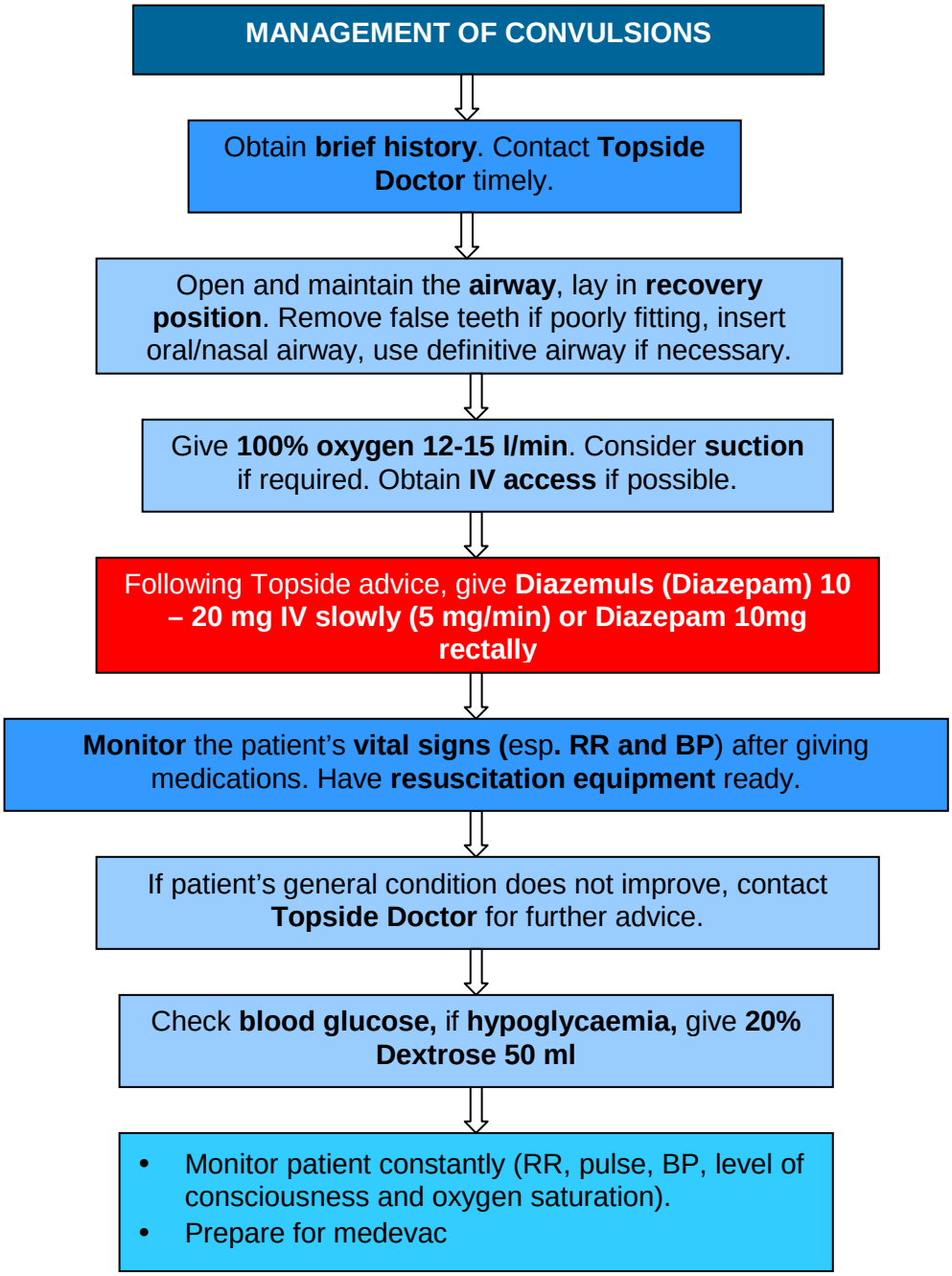

SECTION III GUIDANCE

MEDICATIONS USED FOR MANAGEMENT OF CONVULSIONS

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
DIAZEPAM	Indications: Convulsions Dosage: 10 mg IV or rectally C.I.: Respiratory depression Side Effects: Respiratory depression, drowsiness. Advice: Only to be used following Topside Doctor's advice. In the case of IV infusion give slowly at least over 2-3 min. Monitor respiratory function and level of consciousness after medication.	Tablets 5mg Or Ampoule 5 mg/ml 2ml (Diazemuls)
DEXTROSE	Indications: Treatment of profound coma and hypoglycaemia Dosage: Up to 50 ml C.I.: Impaired renal or hepatic function Side Effects: Venous irritation, thrombophlebitis Advice: Slow IV injection undiluted until patient regains consciousness. If no IV access, consider Glucagon.	Ampoule 20% 25ml

SECTION III GUIDANCE

MENINGITIS

Definition

Meningitis is an inflammation of pia and arachnoid membranes caused by bacteria, viruses, fungi, other organisms, or non-infective causes, such as trauma. It represents a manifestation of a variety of diseases with varying severity.

Bacterial meningitis is mainly caused by Meningococcus, Pneumococcus, Haemophilus influenzae and Lysteria monogytogenes.

Route of transmission by droplet spread as a result of prolonged close contact. Only a very small % of people carrying the organism actually become ill, the illness usually develops in susceptible individuals within 7 days of acquiring the organism.

Signs and Symptoms

Early features of meningitis include headache, leg pains, cold hands and feet, abnormal skin colour.

Later signs:

- Meningism: neck stiffness, photophobia, Kerning's sign (pain and resistance on passive knee extension with hip fully flexed). Meningism sometimes may be absent.
- Decreased level of consciousness, coma;
- Seizures;
- Focal CNS signs;
- Petechial rash (non-blanching); it may be present as one or two spots. A suggestive rash, even in the absence of other symptoms, should be treated as meningococcal septicaemia until proven otherwise. The rash may not be present on presentation.
- Pyrexia;
- Headache;
- Non-specific flu-like symptoms;
- Respiratory distress;
- Shock/sepsis: slow capillary refill, low BP, tachycardia.

Assessment

- ***Brief history:*** Try to obtain detailed information on all presenting symptoms - headache, neck stiffness, pyrexia, neurological symptoms, etc? Recent medical history – infection, any trauma? Past medical history? Any medications? Any travel abroad? Contacts?

- ***Examination:***
  - Start **ABCDE** of primary survey immediately and resuscitate, if necessary.

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- Perform secondary survey.
- Pay attention to **neurology**.
- Look for **rashes**.
- Access **AVPU, GCS**.
- Monitor vital signs.

- ***Investigations:***
  - Blood glucose;
  - Pulse oximetry;
  - Check ECG/cardiac monitor.

Management

Medic should commence treatment as soon as possible:

- Get help and call the Topside Doctor. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside on your behalf. Ensure all information is passed to the doctor.

- Start **ABCDE** of primary survey, resuscitate if necessary.

- If level of consciousness is decreased, ensure and maintain a **clear airway** (head tilt, chin lift; consider suction if necessary; insert an oral/nasal airway; use definitive airway, if required). Commence **high flow oxygen (15 l/min)** by non-rebreathing/Hudson mask or ventilate if no adequate spontaneous breathing.

- Obtain **IV access** and support circulation if required.

- Perform secondary survey. Do **neurological examination,** look for **rashes**.

- Assess neurological status with **AVPU** (Alert, Responds to Vocal Stimuli, Responds to Pain, Unresponsive) and **GCS**. See Appendix 7 for the GCS which you may copy. Use this chart to record your observations.

- Give **Benzylpenicillin 1.2 g IV/IM** following Topside advice as soon as possible.

- Ensure that resuscitation equipment (ventilation adjuncts, defibrillator, suction, IV giving sets) is at hand.

- Treat **seizures** if any.

- Monitor RR, BP, HR and level of consciousness.

- Arrange **medevac**. **Do not delay** transportation.

SECTION III GUIDANCE

- Monitor the patient constantly (RR, HR, BP, oxygen saturation, level of consciousness) until medevac.

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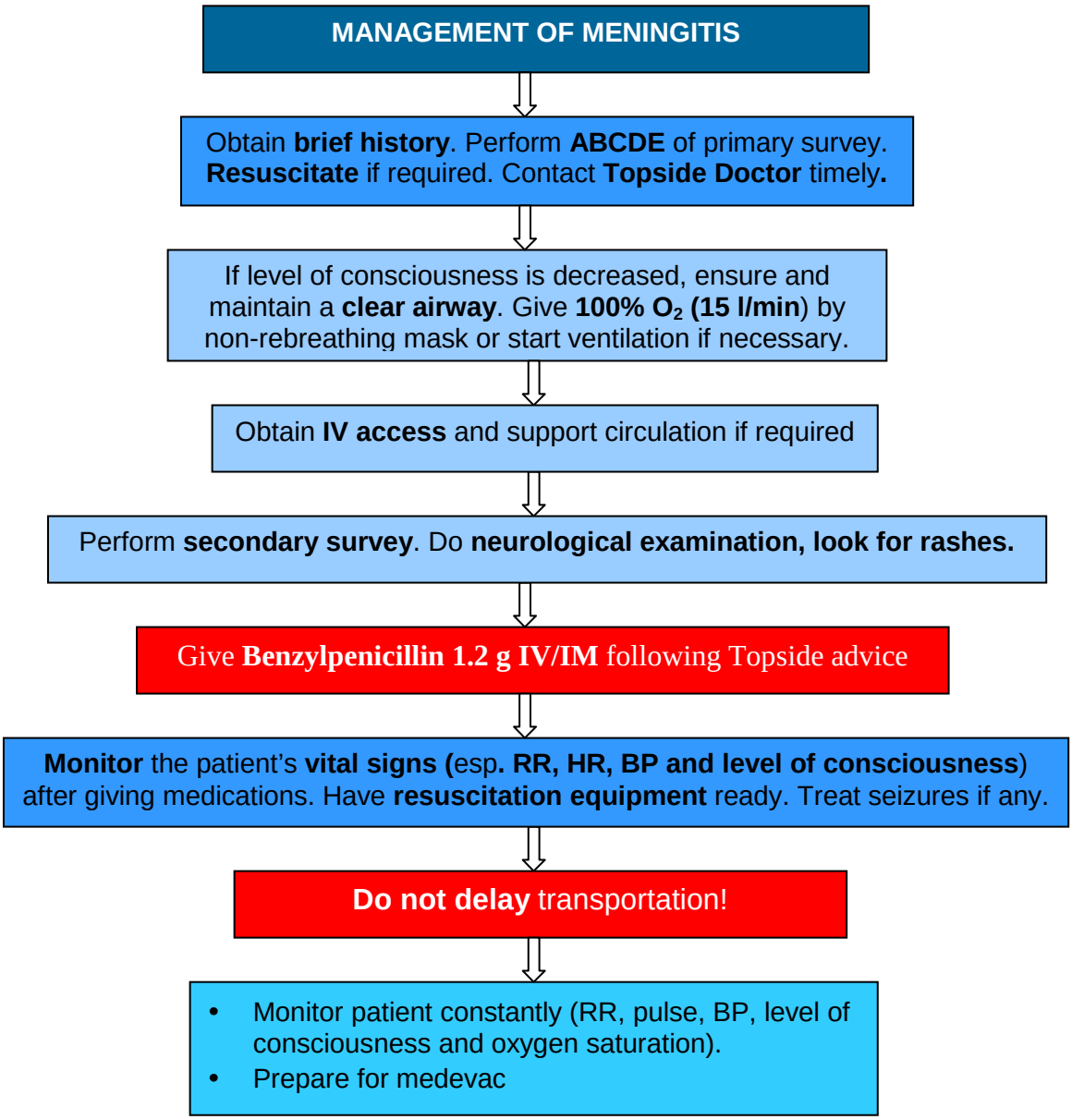

SECTION III GUIDANCE

MEDICATIONS USED FOR MANAGEMENT OF MENINGITIS

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
BENZYLPENICILLIN	Indications: Meningitis Dosage: 1.2 g IV/IM	Ampoule 600 mg
	C.I.: Penicillin hypersensitivity Side Effects: Skin rash, fever, arthralgia	
	Advice: Give to all suspected cases of meningitis following Topside Doctor's advice even if Penicillin allergy (unless documented anaphylaxis to Penicillin). Have resuscitation equipment and Adrenaline ready in case of reaction (See Anaphylaxis Protocol, pg.59)	

SECTION III GUIDANCE

STROKE/ CEREBRO-VASCULAR ACCIDENT (CVA)

Definition

Stroke results from ischaemic infarction or bleeding into part of the brain, manifest usually by rapid onset (over minutes) of focal CNS signs and symptoms.

Signs and Symptoms

Sudden onset of an abnormal cerebral function including:

- Unilateral weakness/paraesthesia;
- Dysphasia;
- Convulsions;
- Headache;
- Reduced level of consciousness/coma;
- Abnormal respiratory pattern;
- Abnormal eye movements.

If the neurological symptoms and signs last less then 24 h, the diagnosis is transient ischaemic attack (TIA).

Assessment

- ***Brief history:*** Try to obtain detailed information on all presenting symptoms - headache, neurological symptoms, etc? Past medical history – hypertension, atrial fibrillation, pervious vascular events or diabetes? Any medications? Determine the exact time of onset and record this information in the patient's medical records.

- ***Examination:***
  - Start **ABCDE** of primary survey immediately and resuscitate, if necessary.
  - Perform secondary survey.
  - Perform **neurological examination**.
  - Access **AVPU, GCS**.
  - Monitor vital signs.

- ***Investigations:***
  - Blood glucose;
  - Pulse oximetry;
  - Check ECG/cardiac monitor.

Management

Medic should commence treatment as soon as possible:

SECTION III GUIDANCE

- Get help and call the Topside Doctor. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside on your behalf. Ensure all information is passed to the doctor.

- Start **ABCDE** of primary survey, resuscitate if necessary.

- If level of consciousness is decreased, ensure and maintain a **clear airway** (head tilt, chin lift; consider suction if necessary; insert an oral/nasal airway; use definitive airway, if required). Commence **high flow oxygen (15 l/min)** by a non-rebreathing/Hudson mask or ventilate if no adequate spontaneous breathing.

- Obtain **IV access.** Actively **manage hypotension** by giving saline.

- If the patient is conscious, **sit** him/her **up**.

- The patient should be **nil by mouth**.

- Perform **secondary survey and neurological examination**.

- Assess neurological status with **AVPU** (Alert, Responds to Vocal Stimuli, Responds to Pain, Unresponsive) and **GCS**. See Appendix 7 for the GCS which you may copy. Use this chart to record your observations.

- Check **blood glucose**. If hypoglycaemia is present give **20% Dextrose 50 ml.**

- Treat **seizures** if any (See Convulsions Protocol, pg. 81).

- Ensure that **resuscitation equipment** (ventilation adjuncts, defibrillator, suction, IV giving sets) is at hand.

- Perform **ECG**.

- If the patient is not improving, contact the Topside Doctor for further advice.

- Monitor RR, BP, HR and level of consciousness.

- Arrange **medevac**.

- Monitor the patient constantly (RR, HR, BP, oxygen saturation, level of consciousness, peripheral circulation) until medevac.

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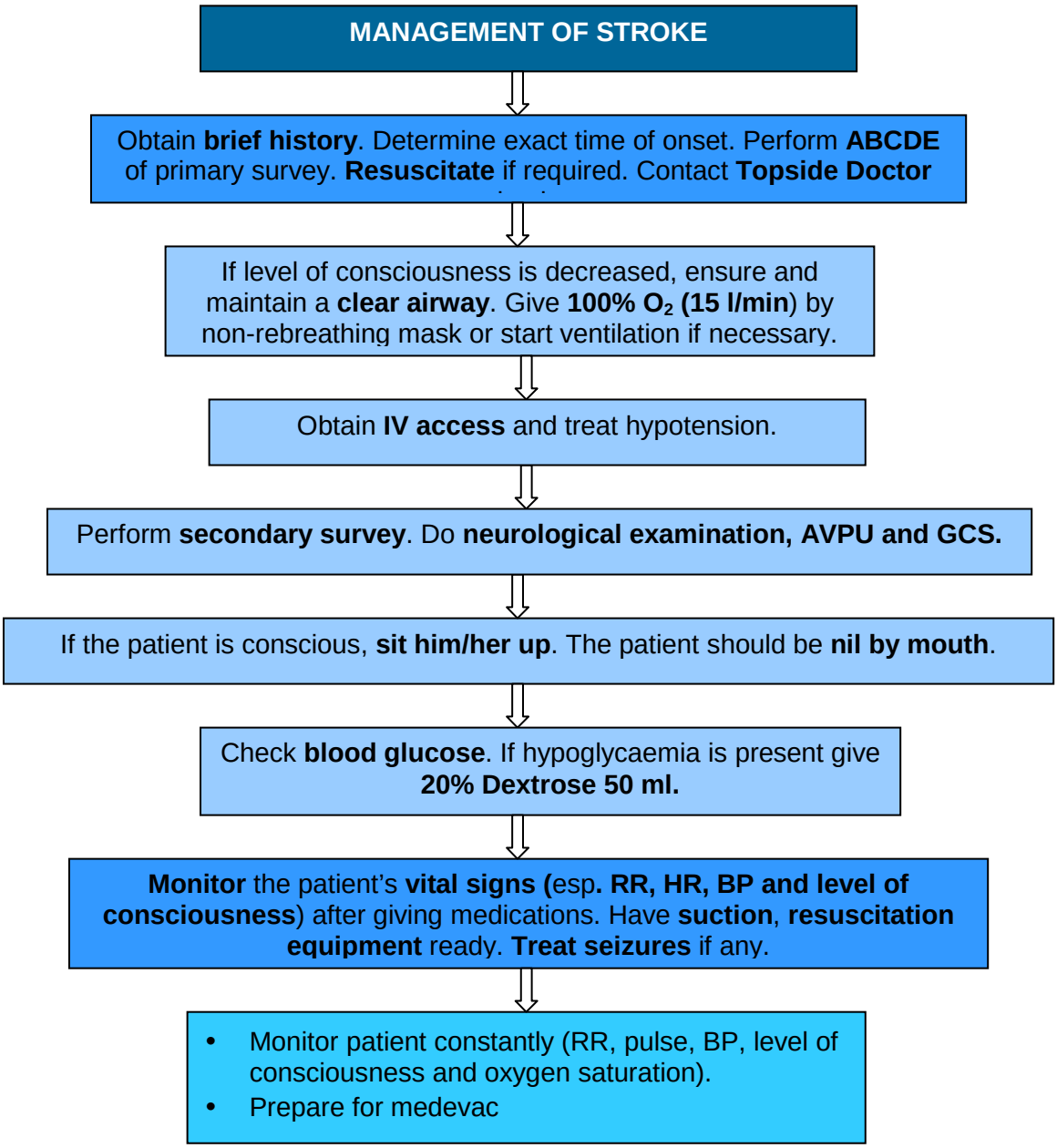

SECTION III GUIDANCE

MEDICATIONS USED FOR MANAGEMENT OF STROKE

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
DEXTROSE	Indications: Treatment of profound coma and hypoglycaemia Dosage: Up to 50 ml C.I.: Impaired renal or hepatic function Side Effects: Venous irritation, thrombophlebitis Advice: Slow IV injection undiluted until patient regains consciousness. If no IV access, consider Glucagon.	Ampoule 20% 25ml

SECTION III GUIDANCE

4.0 RESPIRATORY EMERGENCIES

SEVERE PNEUMONIA

Definition

An infection of lung tissue.

Signs and Symptoms

***Symptoms*:** fever, rigors, malaise, anorexia, dyspnoea, cough, purulent sputum, haemoptysis, and pleuritic chest pain.

Signs: fever, cyanosis, herpes labialis, confusion, tachypnoea, tachycardia, hypotension, signs of consolidation (diminished expansion, dull percussion note, bronchial breathing), rales, and sometimes a pleural rub.

Assessment

- ***Brief history:*** presenting complaints, present/past medical history, medications, allergies, family history.
- ***Examination:*** respiratory rate, pulse, BP, chest examination.
- ***Investigations:***
    - Pulse oximetry – determines the adequacy of oxygen therapy. The aim of oxygen therapy is to maintain SpO2 ≥92%
    - Cardiac monitor/ECG.

Management

Medic should commence treatment as soon as possible:

- Call the Topside Doctor and get help.
- **Sit patient up** on resuscitation coach and commence **high flow oxygen (15 l/min)** by a non-rebreathing/Hudson mask, if necessary.
- Treat **hypotension and shock** if any (See Shock Protocol, pg.54). **IV access** and intravenous fluids might be required due to dehydration or anorexia.
- After discussion with Topside Doctor give antibiotic **Amoxicillin 500 mg – 1 g each 8 h or Clarithromycin 500 mg each 6 h orally.**

SECTION III GUIDANCE

- If pleuritic pain is severe, give **Paracetamol 1 g each 6 h or NSAID**.
- In severe cases the patient may require **definitive airway and ventilatory support.**
- Arrange **medevac** if patient's general condition is severe.
- Monitor the patient constantly (RR, HR, BP, oxygen saturation and level of consciousness) until medevac.

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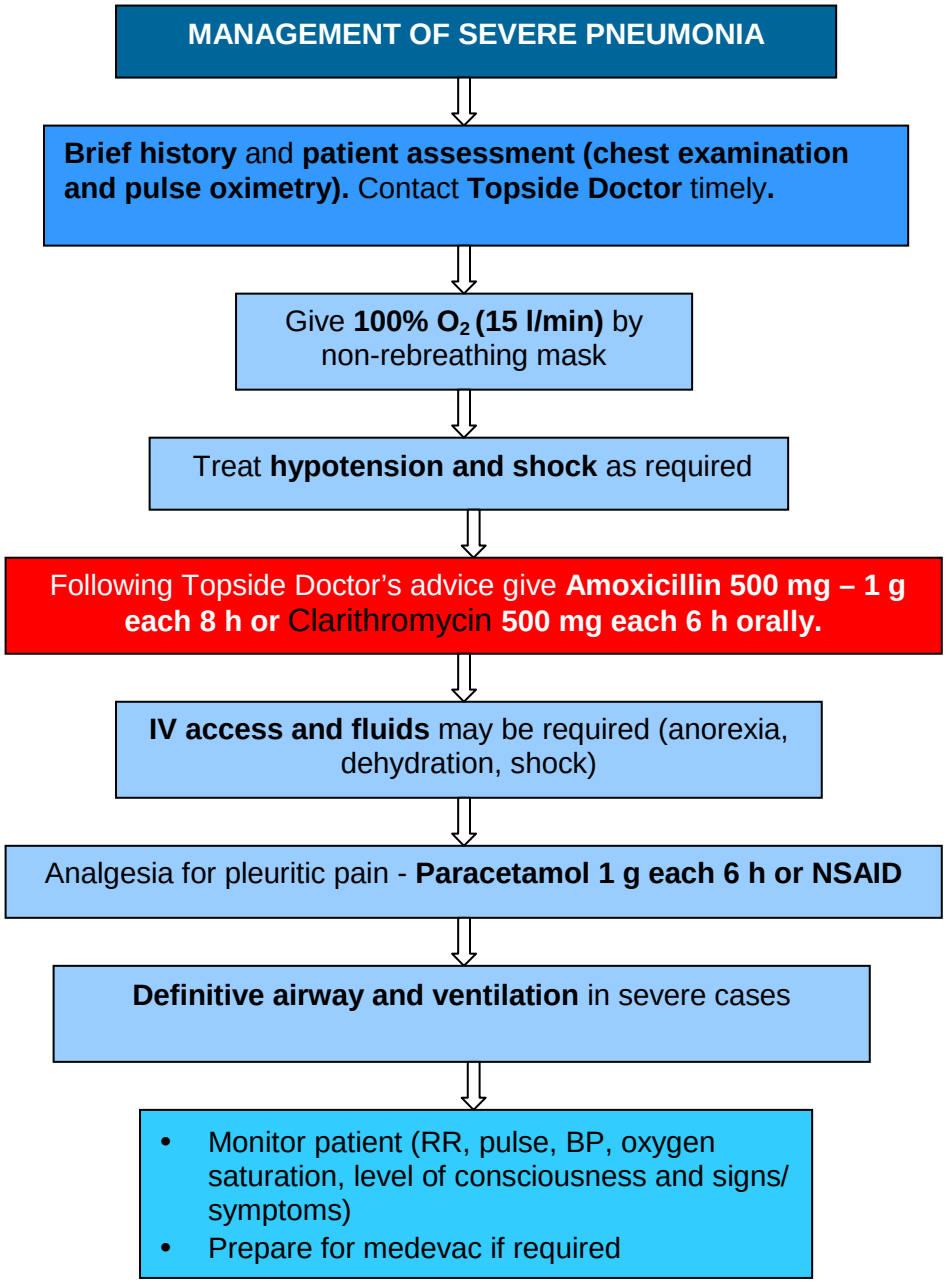
SECTION III GUIDANCE



SECTION III GUIDANCE

MEDICATIONS USED FOR MANAGEMENT OF SEVERE PNEUMONIA

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
AMOXICILLIN	Indications: Pneumonia Dosage: 500 mg – 1 g each 8 h orally C.I.: Penicillin sensitivity. Causes erythematous rashes in glandular fever. Reduce dose in renal impairment. Side Effects: Skin rashes are of two types:- an urticarial rash which is usually indicative of true Penicillin hypersensitivity and an erythematous rash which is generally specific to Ampicillin and Amoxicillin. The incidence of erythematous rash is particularly high in patients with infectious mononucleosis (glandular fever). If a rash occurs, discontinue treatment. Bowel upsets will cease on discontinuation of treatment. Advice: Always ask about sensitivity to Penicillin. Useful broad spectrum antibiotic. Preferably to use under advice of Topside Doctor.	Capsules 500 mg
CLARITHROMYCIN	Indications: Pneumonia Dosage: 500 mg each 6 h orally C.I.: Hepatic and renal impairment. Side Effects: Nausea, vomiting, diarrhoea Advice: Should be taken with large amount of water to prevent GI side effects. Preferably to use under advice of Topside Doctor.	Tablets 250 mg
PARACETAMOL	Indications: Mild to moderate pain, pyrexia Dosage: 1 g each 6 h orally C.I.: Alcoholism, renal or hepatic impairment Side Effects: Liver and renal damage in prolonged use or overdosage Advice: Use step approach of pain control if paracematol is not effective to reduce pleuritic pain	Tablets 500 mg

SECTION III GUIDANCE

ACUTE SEVERE ASTHMA

SIGN Guideline "British Guideline on the Management of Asthma" -
http://www.sign.ac.uk/guidelines/fulltext/101/index.html

Check this site regularly to ensure that the guidelines below have not changed.

Definition

Asthma is a syndrome of variable airflow obstruction and is characterised by recurrent episodes of dyspnoea, cough and wheeze caused by reversible airway obstruction.

Signs and Symptoms

***Symptoms*:** dyspnoea, wheeze, cough, sputum production.

Signs: tachypnoea, audible wheeze, hyperinflated chest, hyperresonant percussion note, diminished air entry, widespread, polyphonic wheeze. See below for assessment of severity.

Assessment

- ***Brief history:*** ask about usual and recent treatment, previous acute episodes and their severity, best peak expiratory flow (PEF) rate. Ask about any hospital/ITU admissions due to exacerbation of asthma.

- ***Examination:*** respiratory rate, pulse, BP, chest examination.

- ***Investigations:***

    - PEF is useful and valid measure of airway calibre. PEF expressed as a % of the patient's previous best value is most useful clinically. In the absence of this, PEF as a % of predicted is a rough guide.
    - Pulse oximetry – determines the adequacy of oxygen therapy. The aim of oxygen therapy is to maintain SpO2 ≥92%
    - Cardiac monitor/ECG.

- ***Assess the severity of acute asthmatic attack:***

    - *Severe exacerbation – any one of:*
        - PEF 33-50% best or predicted;
        - Respiratory rate ≥25/min;
        - Heart rate ≥110 /min;
        - Inability to complete sentences in one breath.

    - *Life-threatening exacerbation – in a patient with severe asthma any one of:*
        - PEF < 33% of best or predicted;

- SpO_2 <92%;
- Silent chest;
- Cyanosis;
- Feeble respiratory effort;
- Bradycardia, arrhythmia, hypotension;
- Exhaustion, confusion, coma.

Management

Medic should commence treatment as soon as possible:

- Call the Topside Doctor and get help. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside on your behalf.
- Sit patient up on resuscitation coach and commence **high flow oxygen (15 l/min)** by a non-rebreathing/Hudson mask.
- Administer **Salbutamol (β2 agonist) 5 mg** nebulised with oxygen.
- Give **Prednisolone 40-50 mg orally** unless the patient is too breathless to swallow. In this case give **Hydrocortisone 100 mg by slow IV injection, 4 x times per day**.
- Recheck **PEF** 15-30 minutes after administration of Salbutamol.
- If the patient's condition fails to improve, repeat **Salbutamol** every 15 min.
- Nebulised **Ipratropium Bromide 0,5 mg** every 4 – 6 hours should be added to β2 agonist treatment for patients with acute severe or life-threatening asthma or those with a poor initial response to β2 agonist therapy.
- Monitor **PEF and oxygen saturation**.
- If patient is not improving, contact Topside Doctor for further advice.
- Obtain **IV access** and start slow Saline drip
- Arrange **medevac**.
- Monitor the patient constantly (RR, HR, BP, Peak Flow Rate, oxygen saturation, and signs/symptoms) until medevac.

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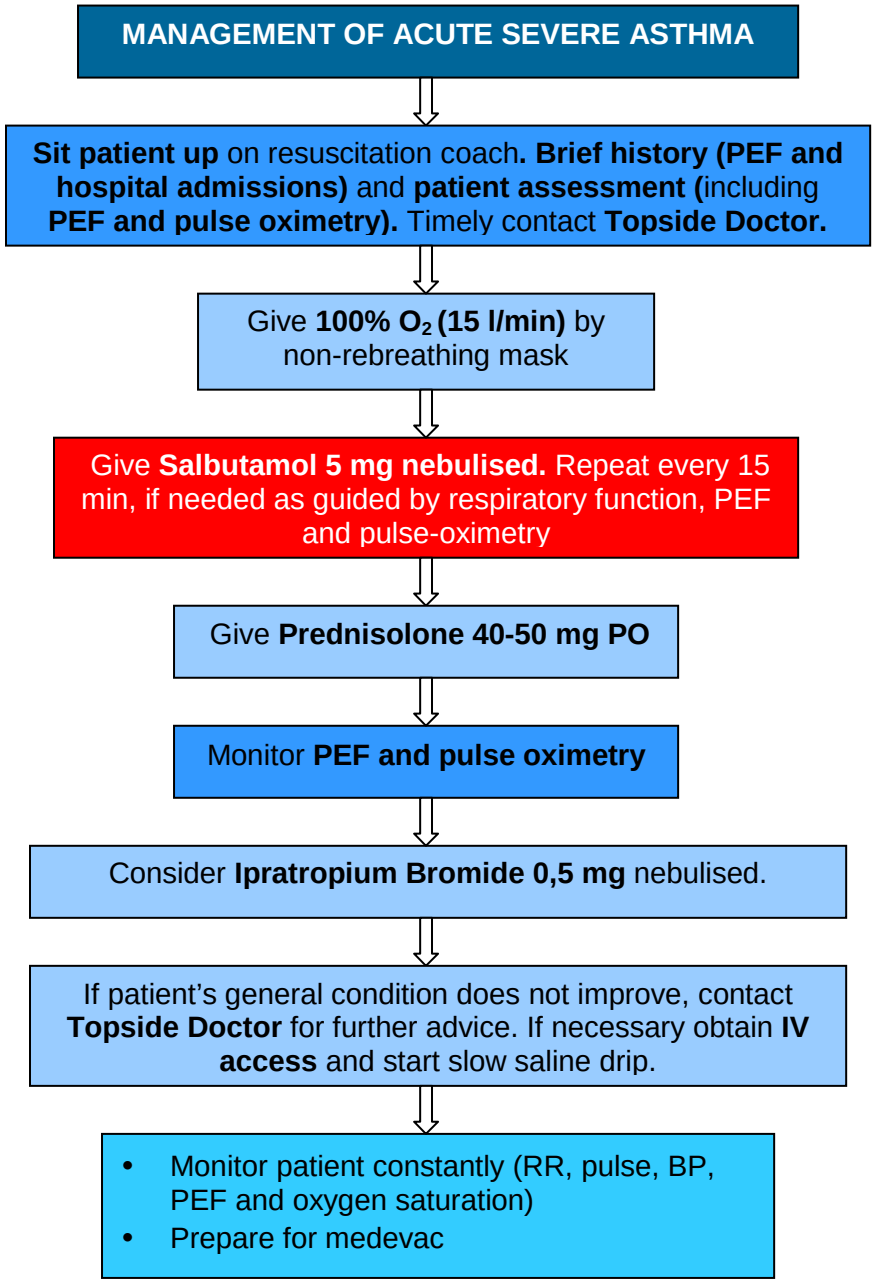
SECTION III GUIDANCE



SECTION III GUIDANCE

MEDICATIONS USED FOR MANAGEMENT OF ACUTE SEVERE ASTHMA

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
SALBUTAMOL	Indications: Lower airway obstruction in acute asthma Dosage:5 mg nebulised C.I.: Hypertension, cardiovascular disease, hyperthyroidism, arrhythmias, susceptibility to QT–interval prolongation, tachycardia. Side Effects: Tremor, headache, muscle cramps, palpitations, tachycardia Advice: in the case of patient on β-blockers, contact Topside Doctor for further advise	Nebuliser solution 1mg/ml, 2.5ml, 2.5 mg
PREDNISOLONE	Indications: Treatment of severe/life-threatening asthma attack. Dosage: 40-50 mg orally. C.I.: Active duodenal ulcer Side Effects: Mainly with long term use: oedema, Cushing's syndrome, peptic ulcers, etc. Advice: Only use under Topside Doctor's advice.	Tablets 5 mg
HYDROCORTISONE	Indications: Treatment of severe/life-threatening asthma attack. Dosage: 100-200 mg IV/IM C.I.: None in the case of anaphylaxis Side Effects: Mainly with long term use: oedema, Cushing's syndrome, peptic ulcers, etc Advice: Give via slow IV injection over 1-2 min. If possible contact Topside Doctor before administration.	Ampoule 100mg/2 ml
IPRATROPIUM BROMIDE	Indications: Reversible airway obstruction in the case of severe asthma attack that does not respond to Salbutamol treatment. Dosage: 0,5 mg (500 mcg) nebulised C.I.: Should be used with caution in glaucoma, prostatic hyperplasia and bladder outflow obstruction. Side Effects: Dry mouth, nausea, constipation, and headache. Tachycardia and atrial fibrillation have also been reported. Advice: Give via slow IV injection over 1-2 min. If possible contact Topside Doctor before administration.	*Nebuliser solution 500mcg/2 ml*

SECTION III GUIDANCE

5.0 TRAUMA

BURNS

Definition

A burn is a type of injury that may be caused by heat, cold, electricity, chemicals, light, radiation, or friction. Burns can be highly variable in terms of the tissue affected, the severity, and resultant complications.

Refer to Topside Doctor those burns that are:

- Full thickness;
- Partial thickness burn >10% surface area (see Burn chart in Appendix 6);
- Burns to airways;
- Burns in sensitive areas such as eye, face, and perineum. Particular care is required for burns of the hands;
- Circumferential burns;
- Electrical burns;
- Chemical burns, including hydrofluoric acid burns (Calcium Gluconate is required for these burns)

Signs and Symptoms

Superficial burn: erythema, pain, and the absence of blisters. They are not life-threatening, and generally do not require IV fluid replacement.

Partial thickness burns: red or mottled appearance with associated swelling, blister formation, painful, weeping surface.

Full thickness: insensate/painless, dry, grey-white or dark, leathery; may appear translucent, mottled, or waxy white; does not blanch with pressure.

Assessment

- ***If you need to provide emergency care at the scene, check for any dangers first.***

- ***Do not delay ABC of life support if required.***

- ***Brief history:*** Mechanism of injury – confined space, possibility of smoke, fume inhalation? Recent complaints – any laboured breathing, any stridor? Past medical history – cardiac or respiratory, diabetes, etc? Occupation? Any medications? It is essential to establish time of the burn. Establish patient's tetanus immunization status, if possible.

- ***Severity of burn:***

- *Size of the burn* (see burn chart in Appendix 6) – use rule of nines or palm to determine the size that is crucial for calculation of fluid requirements. Ignore areas of erythema.
- *Depth of the burn* (see above).

- ***Examination:***
  - Start **ABCDE** of primary survey immediately and resuscitate, if necessary. Perform secondary survey as soon as possible;
  - Monitor vital signs, especially pulse and BP.

- ***Investigations:***
  - Pulse oximetry;
  - Fluid balance.

Management

Medic should commence treatment as soon as possible:

- If emergency care should be provided at the scene, **check for dangers** and do not put yourself at risk.

- Get help and call the Topside Doctor. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside on your behalf.

- Place the patient on resuscitation coach. Start **ABCDE** of primary survey. Assess airway, breathing and circulation immediately.

- Beware of **upper airway obstruction** (history of fire in an enclosed space, soot in oral or nasal cavity, singed facial or nasal hair, hoarseness, stridor, and dysphagia). Remember the effects of smoke inhalation may be delayed in their presentation. Closely observe their respiratory function. In the case of upper airway obstruction consider **early definitive airway** or **cricothyoidotomy**.

- Give **high flow oxygen (15 l/min)** by non-rebreathing/Hudson mask or ventilate, if no adequate spontaneous breathing. Exclude life-threatening chest injuries and constricting burns.

- If the patient is confused, he/she may be suffering from the effects of **Carbon Monoxide or Cyanide**. Give **100% oxygen** if carbon monoxide poisoning is suspected (mostly history of burn in confined space, cherry-red skin may be seen as well). Pulse oximetry is unreliable in the case of carbon monoxide poisoning.

- **Stop the burning process** as soon as possible. Remove all clothing to stop the burning process. Do not peel off adherent clothing. Dry chemical powders should be brushed from the wound with care trying to prevent any further contamination. Cool all burns under copious amounts of running water if practicable (thermal

burns – for at least 10 min, chemical burns – for at least 20-30 min). Do not apply cold water to a patient with extensive burns (>10% total BSA) for a long period: this may intensify shock.

- Apply **Waterjel bandages** or **cling film** to burns to exclude air and so reduce pain. Do not break blisters. Do not apply creams or ointments that obscure the burn if you will be referring the patient to the burns unit. Do not attempt to neutralise chemical burns (unless caused by Hydrofluoric acid in which case Calcium Gluconate ointment is necessary).

- **Partial thickness burn more than 15%** in adults requires IV fluid resuscitation. Obtain **IV access** with 2 wide bore cannulas. If you have to put IV lines through burned skin, do it.

- If time of transfer is less than one hour from the time of injury, give up to **500-1000 ml of Hartmann's solution or 0,9% Normal Saline**. If time of transportation is delayed, calculate the volume of IV fluids according to **Muir and Barclay or Parkland formulae**:

  Parkland formula: 4 ml x weight (kg) x %burn = ml Hartmann's solution (crystalloid solution only) in 24h, half given in first 8 h after the burn, the rest should be used within remaining 16 h.

  Muir and Barclay formula: % area of burn x weight (kg) divided by 2 = ml colloid (e.g. Gelofusine). This volume is to be given in first 4 hours after the burn and then again in the period of 4 h.

  Either formula is appropriate but must use appropriate fluid i.e. crystalloid for Parkland not colloid.

  With both formulae replace fluid from the time of burn, not from the time first seen by medic.

  Both formulae are just guide, adjust IVI according to Topside Doctor's advice, clinical response and urine output; aim for 0,5 – 1 ml/kg/h. Aim for 1 ml/kg/h in the case of severe burns/rhabdomyolysis. Catheterise bladder for urinary output monitoring.

- Severely burned patients may be restless and anxious due to hypoxaemia and hypovolaemia rather than pain. Hypoxaemia and inadequate fluid resuscitation should be managed before administration of **pain relief**. If pain is severe contact Topside Doctor and with his/her advise give either of the following, TITRATED against effect

  Diamorphine in initial doses of 1-2 mg IV slowly over 1 min and repeat every few minutes until the patient is pain free (up to **5mg)**

  OR

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Morphine in initial doses of 3-5 mg IV slowly over 1 min and repeat every few minutes until the patient is pain free (up to **15mg)**

Monitor heart rate, BP and respirations.

Have **Naloxone** to hand to counteract opiate overdosing.

AVOID IM injections
AVOID Cyclimorph

Give **Metoclopramide** 10mg IV over 1 minute (take particular care with anyone under 20 years of age as they are at risk of an adverse reaction).

If head and chest injuries could be excluded **Entonox** may be given as alternative.

- Perform **secondary survey** to be able to determine any other existing injury. The patient may ignore other injuries, so a careful general examination is necessary.
- Insertion of **NG tube** may be indicated for a patients with burns involving more than 20% of total BSA, in the case of nausea, vomiting and abdominal distension.
- If patient is not improving, contact Topside Doctor for further advice.
- Arrange medevac.
- Monitor the patient constantly (RR, HR, BP, level of consciousness) until medevac. Circumferential limb burns may impair the distal circulation, so **monitor peripheral circulation** checking for pulse, cyanosis, impaired capillary refill, paraesthesia and deep-tissue pain.

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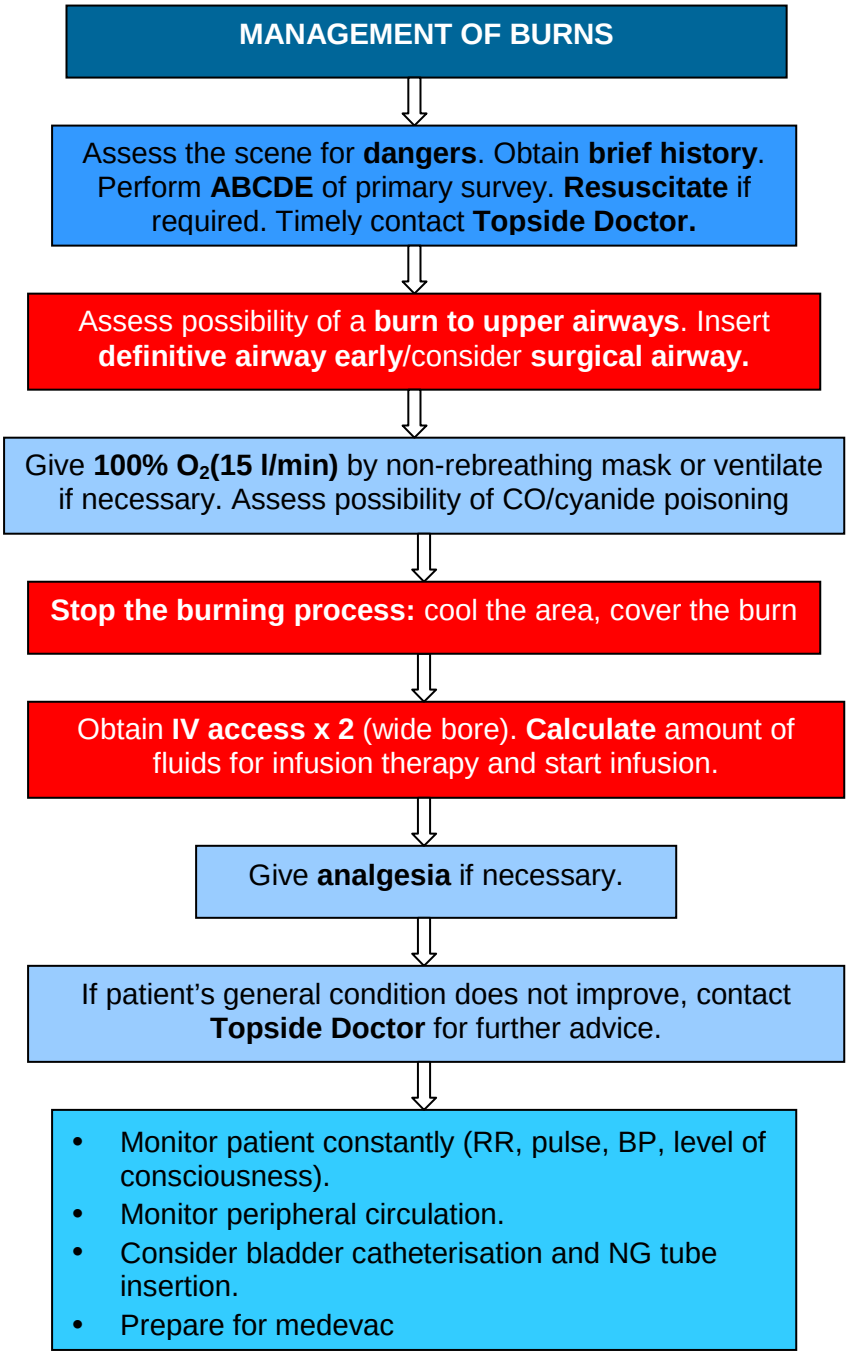

SECTION III GUIDANCE

MEDICATIONS USED FOR MANAGEMENT OF BURNS

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
0,9% SODIUM CHLORIDE OR HARTMANN'S (COMPOUND SODIUM LACTATE) SOLUTION	Indications: Rapid correction of water and electrolyte depletion, temporary increase in blood volume, prevention of hypovolaemic shock in burns. Dosage: Calculate volume of fluids according to Parkland or Muir and Barclay formulae. C.I.: Restrict intake in impaired renal function, cardiac failure, peripheral and pulmonary oedema Side Effects: Administration of large doses may give rise to sodium accumulation, oedema. Advice: Consider bladder catheterisation to monitor urine output. Contact Topside Doctor for advice on ongoing treatment.	Fluid for infusion 500 ml
GELOFUSINE	Indications: Plasma substitute indicated in case of low blood volume. Dosage: Initially 500-1000 ml dependent on BP, radial pulse, urine output. C.I.: Should be used with caution in patients with cardiac, liver disease or renal impairment. Side Effects: Hypersensitivity reactions may occur including, rarely severe anaphylactoid reactions. Transient increase in bleeding time may occur. Advice: Urine output should be monitored. If possible contact Topside Doctor before administration.	Fluid for infusion 500 ml
MORPHINE SULPHATE/ DIAMORPHINE HYDROCHLORIDE	Indications: AMI, Acute severe pain, acute pulmonary oedema. Diamorphine Hydrochloride may be preferable to morphine sulphate in relief of pulmonary oedema in acute MI Dosage: Morphine Sulphate in initial doses of 3-5 mg IV slowly over 1 min and repeat every few minutes until the patient is pain free (up to 15mg). Diamorphine Hydrochloride in initial doses of 1-2 mg IV slowly over 1 min and repeat every few minutes until the patient is pain free (up to 5mg) C.I.: Raised intra-cranial pressure, chest injury, coma, alcoholism, head injury Side Effects: Nausea, vomiting, respiratory depression, drowsiness, dry mouth, blurred vision, constipation, dependence. Generally Diamorphine Hydrochloride has a cleaner side effect profile. Advice: Give via slow IV injection. Both medications have a rapid onset of action and can cause significant respiratory depression which can be reversed using Naloxone (should be easily to hand when administering opiates).	Morphine Sulphate - ampoule 15 mg/1ml (controlled drug Diamorphine Hydrochloride - ampoule 10mg/1ml (controlled drug)

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METOCLOPRAMIDE HYDROCHLORIDE	**Indications: Nausea and vomiting**	Ampoule 10mg/2ml
	Dosage:10 mg over 1-2 min. In young adults 17-19 y.o. under 60 kg – 5 mg..	
	C.I.: Gastro-intestinal obstruction, perforation or haemorrhage.	
	Side Effects: extrapyramidal effects (especially in young adults), hyperprolactinaemia, drowsiness, diarrhoea, depression, neuroleptic malignant syndrome, rashes, pruritus, oedema, cardiac conduction abnormalities.	
	Advice: take particular care with anyone under 20 years of age as they are at risk of an adverse reaction	

SECTION III GUIDANCE

SERIOUS TRAUMA

Definition

Trauma is an acute physiological and structural change (injury) that occurs in a patient's body when an external source of energy dissipates faster than the body's ability to sustain and dissipate it.

Signs and Symptoms

Signs and symptoms depend on the type and severity of the trauma. See Management below.

Assessment

- ***If you need to provide emergency care at the scene, check for any dangers first.*** If possible, examine the scene for any clues.

- ***Do not delay ABC of life support if required.***

- ***Brief history:*** Mechanism of injury? Recent complaints? Any past medical history? Any medications? Occupation? In the case of open injury establish patient's tetanus immunization status, if possible.

- ***Examination:***
    - Start **ABCDE** of primary survey immediately and resuscitate, if necessary. If time allows, perform secondary survey as soon as possible;
    - Monitor vital signs, especially RR, pulse, BP and level of consciousness.

- ***Investigations:***
    - Pulse oximetry;
    - ECG;
    - Fluid balance.

Management

Medic should commence treatment as soon as possible:

- If emergency care should be provided at the scene, **check for dangers** and do not put yourself at risk.

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- Get help and call the Topside Doctor. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside Doctor on your behalf.

- Start **ABCDE** of primary survey. Assess airway, breathing and circulation immediately.

  - **Airway**. Maintain **airway patency with cervical spine protection**. Perform jaw-thrust manoeuvre. Clear the airway of foreign bodies, secretions, and vomit. Insert an oropharyngeal airway and establish a definitive airway as necessary. Consider surgical airway, if indicated. Maintain the cervical spine in a neutral position with manual immobilisation as necessary when establishing an airway. Reinstate immobilisation of the c-spine with appropriate devices (cervical collar, head blocks, etc) after establishing an airway.

  - **Breathing**. Expose the neck and chest, and ensure immobilisation of the head and neck. Perform **RIPPAS** (rate, inspection, palpation, percussion, auscultation, saturation) of chest examination. Determine the rate of respirations. Inspect and palpate the neck and chest for tracheal deviation, chest movement, use of accessory muscles, and any signs of injury. Percuss the chest for presence of dullness and hyperresonance. Auscultate the chest bilaterally.

  - Give **high flow oxygen (15 l/min)** by non-rebreathing/Hudson mask or ventilate, if no adequate spontaneous breathing (10-12 ventilations per min).

  - Alleviate **tension pneumothorax** (hyper-resonance and absent breath sounds on the affected side, tracheal deviation away from the affected side (late sign), cyanosis, shock, tachycardia, tachypnoea) by insertion of wide bore (14/16G) cannula into the 2nd intercostal space in the mid-clavicular line of the affected side (See Tension Pneumothorax Protocol, pg.115).

  - Seal any **open pneumothorax** (apply Asherman's seal or occlusive dressing attached at 3 sides leaving the 4th to act as a flap valve). Attach a pulse oximeter to the patient.

  - **Circulation.** Assess circulation and ensure haemorrhage control. Identify source(s) of external haemorrhage and control the bleeding (direct pressure, elevation, pressure bandage, pressure points, tourniquet if other methods are ineffective, etc). Identify potential source(s) of internal haemorrhage. Assess pulse, capillary refill, skin colour.

  - Obtain **IV access** with 2 wide bore cannulae and initiate IV fluid therapy with crystalloid. If radial pulse is absent or systolic BP is below 90mmHg, give boluses of 250 ml of crystalloid titrated to radial pulse or BP. Attach ECG monitor to the patient. Insert urinary catheter, if not contraindicated, to monitor the patients urinary output (0,5-1 ml/kg/h).

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- **Disability**. Determine **level of consciousness** using AVPU and GCS (see Appendix 7). Assess the pupils for size, equality, reaction (PEARLA).

- **Exposure**. Completely expose the patient if appropriate, but prevent hypothermia.

- **Treat all injuries** found during primary survey. Consider **pain relief** (Entonox, NSAID, opiates).

- Perform **Secondary survey:**

  - Obtain **SAMPLE history** if not done before.

  - Perform **head-to-toe examination**:
    - Assess for **head and maxillofacial injury**. Inspect and palpate entire head and face for lacerations, contusions, fractures, and thermal injuries. Re-evaluate pupils, level of consciousness. Assess eyes for haemorrhage, penetrating injury, visual acuity, presence of contact lenses (remove if any), etc. Inspect ears and nose for CSF leakage. Maintain airway, continue ventilation and oxygenation as indicated, control haemorrhage, prevent secondary brain injury by adequate oxygenation and IV therapy.

    - Assess **spine and neck**. Inspect for signs of blunt and penetrating injury, tracheal deviation and use of accessory muscles for breathing. Palpate for tenderness, deformity, swelling, subcutaneous emphysema, tracheal deviation, neck veins distension and symmetry of pulses. Maintain adequate in-line immobilisation and protection of cervical spine if required.

    - Examine **chest** walls for signs of blunt and penetrating injury, use of accessory breathing muscles, bilateral chest wall movement. Palpate the entire chest wall for evidence of blunt and penetrating injury, subcutaneous emphysema, tenderness, and crepitation. Percuss for any hyperresonance or dullness. Auscultate chest wall for bilateral breath sounds and heart sounds. Perform needle decompression or chest drain if required. Correctly dress any open chest wound.

    - Inspect **abdomen** for signs of blunt and penetrating injury and internal bleeding. Auscultate for presence of bowel sounds. Palpate the abdomen for tenderness, involuntary muscle guarding, rebound tenderness. Percuss the abdomen to elicit subtle rebound tenderness.

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- Use light palpation to assess for **pelvic injury**. Wrap a sheet around the pelvis or apply pelvic fracture immobilisation device to reduce and control haemorrhage associated with pelvic fracture. Examine perineal area for any lacerations, contusions, haematomas, urethral and rectal bleeding.

- Inspect **upper and lower extremities** for evidence of blunt and penetrating injury. Palpate upper and lower extremities for tenderness, crepitation, abnormal movement, and sensation. Apply appropriate splinting devices for extremity fractures as indicated. Palpate all peripheral pulses for presence, absence, and equality. Inspect and palpate the thoracic and lumbar spines for evidence of blunt and penetrating injuries. Maintain immobilisation of the patient's thoracic and lumbar spines. Log roll the patient if you have to turn him over (5 assistants necessary for this).

- Complete the Glasgow coma scale. Observe for signs of deterioration and monitor GCS in 30 min intervals.

- **Treat** all injuries found during secondary survey and **reassess pain control**.

- Insertion of **NG tube** may be indicated in the case of nausea, vomiting and abdominal distension.

- Repeat the ABCD at frequent intervals and after every intervention/treatment.

- If patient is not improving, contact Topside Doctor for further advice.

- Arrange medevac.

- Monitor the patient constantly (RR, HR, BP, pulse oximetry, level of consciousness) until medevac. In the case of fractures, splinting, pressure bandages that might impair distal circulation, **monitor peripheral circulation** checking for pulse, cyanosis, swelling, impaired capillary refill, paraesthesia and deep-tissue pain.

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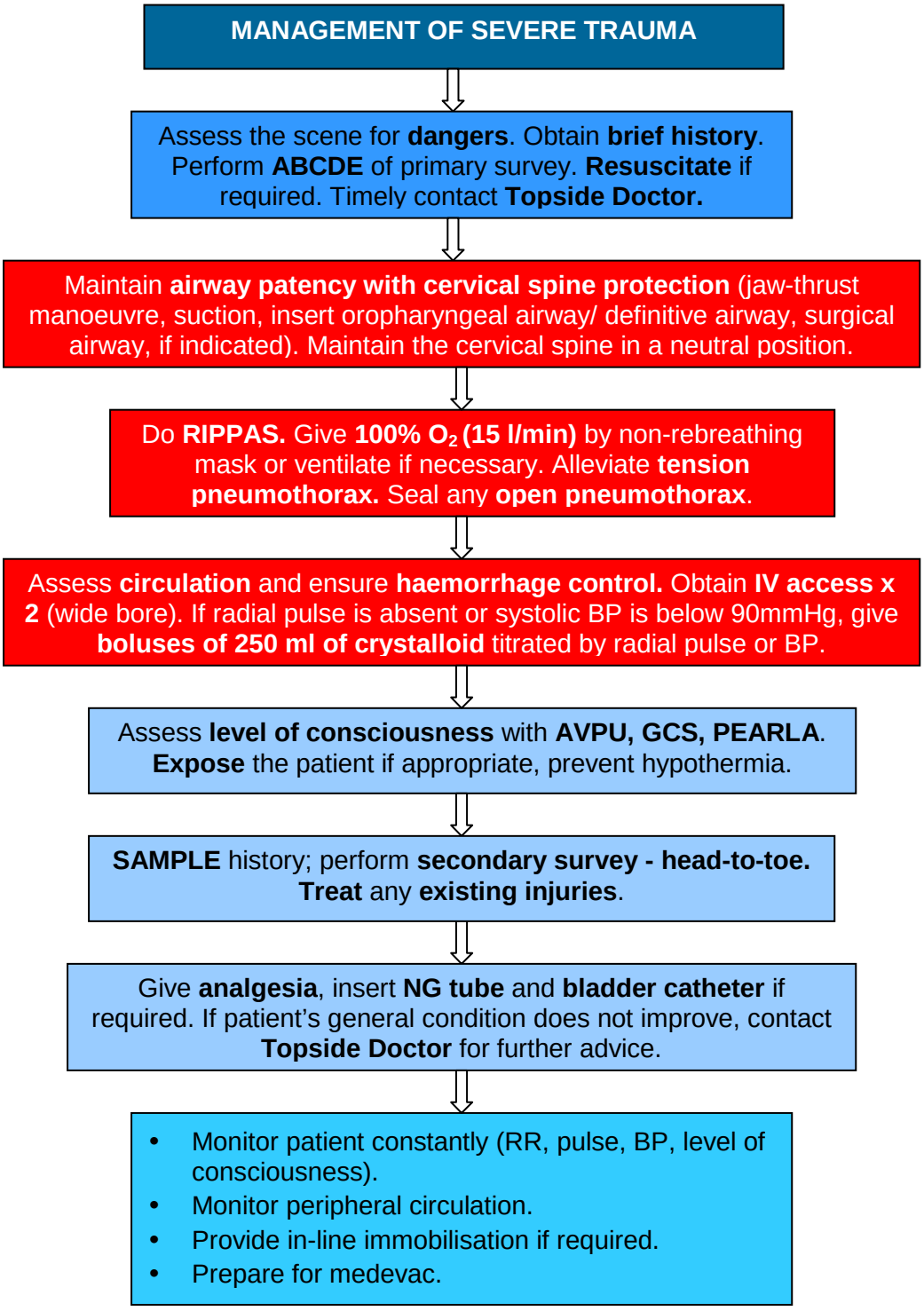

SECTION III GUIDANCE

FLUIDS USED FOR MANAGEMENT OF SEVERE TRAUMA

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
0,9% SODIUM CHLORIDE OR HARTMANN'S (COMPOUND SODIUM LACTATE) SOLUTION	Indications: Rapid correction of water and electrolyte depletion, temporary increase in blood volume, prevention of hypovolaemic shock in burns. Dosage: Calculate volume of fluids according to Parkland or Muir and Barclay formulae. C.I.: Restrict intake in impaired renal function, cardiac failure, peripheral and pulmonary oedema Side Effects: Administration of large doses may give rise to sodium accumulation, oedema. Advice: Consider bladder catheterisation to monitor urine output. Contact Topside Doctor for advice on ongoing treatment.	Fluid for infusion 500 ml

SECTION III GUIDANCE

TENSION PNEUMOTHORAX

Definition

Tension Pneumothorax is a life-threatening condition that results from continued air accumulation within the intrapleural space.

Air may enter the pleural space from an open thoracic injury, an injury to the lung parenchyma due to blunt trauma, barotraumas due to positive pressure ventilation, or tracheobronchial injuries due to shearing forces. In some cases tension pneumothorax may be due to medical lung condition (severe pneumonia, asthma, TB, etc) or spontaneous (young thin men) due to rupture of a subpleural bulla.

Signs and Symptoms

Symptoms: Sudden onset of dyspnoea and/or pleuritic chest pain.

Signs: rapid respiratory rate; rapid, weak pulse; decreased level of consciousness; deviated trachea away from the affected side (late sign); distended neck veins (if there is no accompanying hypovolaemia); cyanosis; reduced expansion; hyper-resonance to percussion; diminished breath sounds on the affected side.

Assessment

- ***If you need to provide emergency care at the scene, check for any dangers first.***

- ***Do not delay ABC of life support if required.***

- ***Brief history:*** Mechanism of injury? Recent complaints? Any past medical history? Any medications? Occupation? In the case of open injury establish patient's tetanus immunization status, if possible.

- ***Examination:***
    - Start **ABCDE** of primary survey immediately and resuscitate, if necessary. If time allows, perform secondary survey as soon as possible;
    - Monitor vital signs, especially RR, pulse, BP and level of consciousness.

- ***Investigations:***
    - Pulse oximetry;
    - ECG;
    - Fluid balance.

SECTION III GUIDANCE

Management

Medic should commence treatment as soon as possible:

- If emergency care should be provided at the scene, **check for dangers** and do not put yourself at risk.

- Get help and call the Topside Doctor. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside on your behalf.

- Start **ABCDE** of primary survey. Assess airway, breathing and circulation immediately.

- Maintain **airway patency with cervical spine protection**. Perform jaw-thrust manoeuvre. Clear the airway of foreign bodies, secretions, and vomit. Insert an oropharyngeal airway and establish a definitive airway as necessary. Maintain the cervical spine in a neutral position with manual immobilisation as necessary when establishing an airway. Reinstate immobilisation of the c-spine with appropriate devices (cervical collar, head blocks, etc) after establishing an airway.

- Expose the neck and chest, and ensure immobilisation of the head and neck. Perform **RIPPAS** (rate, inspection, palpation, percussion, auscultation, saturation) of chest examination. Determine the rate of respirations. Inspect and palpate the neck and chest for tracheal deviation, chest movement, use of accessory muscles, and any signs of injury. Percuss the chest for presence of hyperresonance. Auscultate the chest bilaterally.

- Give **high flow oxygen (15 l/min)** by non-rebreathing/Hudson mask or ventilate, if no adequate spontaneous breathing (10-12 ventilations per min).

- If signs and symptoms of tension pneumothorax are present perform **needle thoracocentesis/ needle decompression** using a 16 gauge cannula connected to a 10 ml syringe. The cannula is inserted in the second intercostal space in the midclavicular line. A rapid release of air confirms diagnosis. The syringe and needle should be removed and the cannula left in situ and secured in position. Do not recover the cannula as tensioning will recur.

- **Reassess ABC and re-examine the chest**. Attach a pulse oximeter to the patient.

- If chest decompression is effective, assess **circulation** (pulse, capillary refill, skin colour, etc). Obtain **IV access** with 2 wide bore cannulae and initiate IV fluid therapy with crystalloid. If radial pulse is absent or systolic BP is below 90mmHg, give boluses of 250 ml of crystalloid titrated to radial pulse or BP. Attach ECG monitor to the patient. Insert urinary catheter, if not contraindicated, to monitor the patients urinary output (0,5-1 ml/kg/h).

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- Consider **pain relief** (NSAID, opiates), if required.
- Determine **level of consciousness** using AVPU and GCS (see Appendix 7). Assess the pupils for size, equality, reaction (PEARLA).
- Completely **expose** the patient if appropriate, but prevent hypothermia.
- Perform **Secondary survey.**
- If the **patient deteriorates** at any time **reassess ABC and re-examine the chest. Check the cannula** for any blockages or dislodgment. If cannula is blocked, flush it through with 2 ml of 0,9% Normal Saline or sterile water.
- If it appears that a tension pneumothorax is re-accumulating, a **second cannula** should be immediately inserted.
- If the patient's general condition still does not improve, contact the Topside Doctor and with his/her advice insert **chest drain** if trained to do so. Chest drain should be inserted in 4^{th}-6^{th} intercostal space anterior- to mid-axillary line.
- Arrange medevac.
- Monitor the patient constantly (RR, HR, BP, pulse oximetry, level of consciousness) until medevac.
- Reassess the patient's general condition and tension pneumothorax before air transfer.

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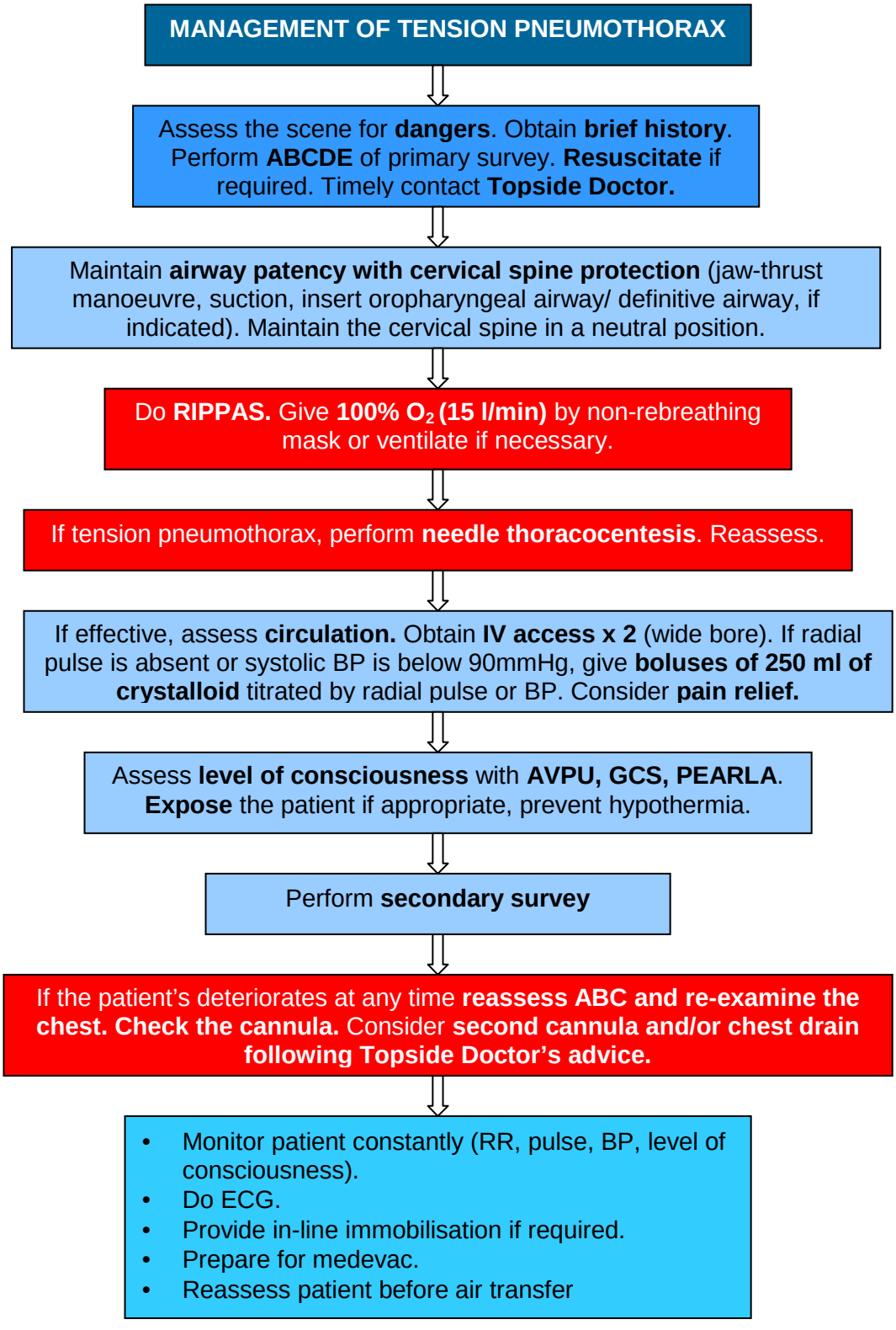

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SECTION III GUIDANCE

6.0 POISONING

METHANOL POISONING

Definition

Methanol is in use on many North Sea Installations. A possibility of Methanol poisoning therefore exists, either as a consequence of accidental ingestion or possibly as a result of deliberate ingestion by those seeking an Ethanol substitute.

Following ingestion, Methanol is rapidly absorbed from the gut but is then slowly metabolised in the liver to Formaldehyde and Formic Acid, which are responsible for the symptoms.

A fatal dose is 60ml of pure Methanol but smaller repetitive exposures will be cumulative.

Signs and Symptoms

Symptom onset is delayed for some hours following poisoning and features are those of alcohol intoxication with additionally severe abdominal pain, drowsiness, dizziness, metabolic acidosis, blurred vision progressing to blindness, and respiratory depression, with or without coma.

Assessment

- ***If you need to provide emergency care at the scene, check for any dangers first.*** Use appropriate **PPE**.
- ***Do not delay ABC of life support if required.***
- ***Brief history:*** Amount taken? When taken? How taken? Recent complaints? Any past medical history? Any medications? Occupation?
- ***Examination:***
  - Start **ABCDE** of primary survey immediately and resuscitate, if necessary. Perform secondary survey as soon as possible;
  - Monitor vital signs, especially RR, pulse, BP and level of consciousness.
- ***Investigations:***
  - Pulse oximetry;
  - ECG;
  - Venous blood sample;
  - Fluid balance.

SECTION III GUIDANCE

Management

Medic should commence treatment as soon as possible:

- If emergency care should be provided at the scene, **check for dangers** and do not put yourself at risk.

- If Methanol poisoning is suspected, get help and contact the Topside Doctor for advice. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside on your behalf.

- Start **ABCDE** of primary survey. Assess airway, breathing and circulation immediately. Resuscitate, if required.

- Insert **NG tube** to empty the stomach if oral ingestion is suspected and if equipment is available.

- If equipment also allows, a **venous blood sample** should be taken and saved for later analysis for Methanol levels.

- The specific treatment for Methanol poisoning is **Ethanol**. For mild poisoning, an oral solution of 40% Ethanol should be given. The dose is **2ml of 40% Ethanol solution per kg of body weight**, and an average dose (for a 75kg man) would therefore be 150ml. Whisky, gin or vodka are all 40% Ethanol solutions and are suitable for the treatment of Methanol poisoning. They should be stored in a locked cupboard and the quantities checked regularly in the same manner as controlled drugs are.

- If patient is not improving, contact Topside Doctor for further advice.

- In severe poisoning, characterised by decreased level of consciousness or respiratory depression, or alternatively if persistent vomiting makes oral treatment impossible, intravenous Ethanol will be required. This is impractical on North Sea installations as intravenous treatment will require an accurate infusion pump and also regular blood samples for concentrations of both Methanol and Ethanol. Methanol poisoning requires immediate medevac.

- Arrange medevac.

- Monitor the patient constantly (RR, HR, BP, pulse oximetry, level of consciousness) until medevac.

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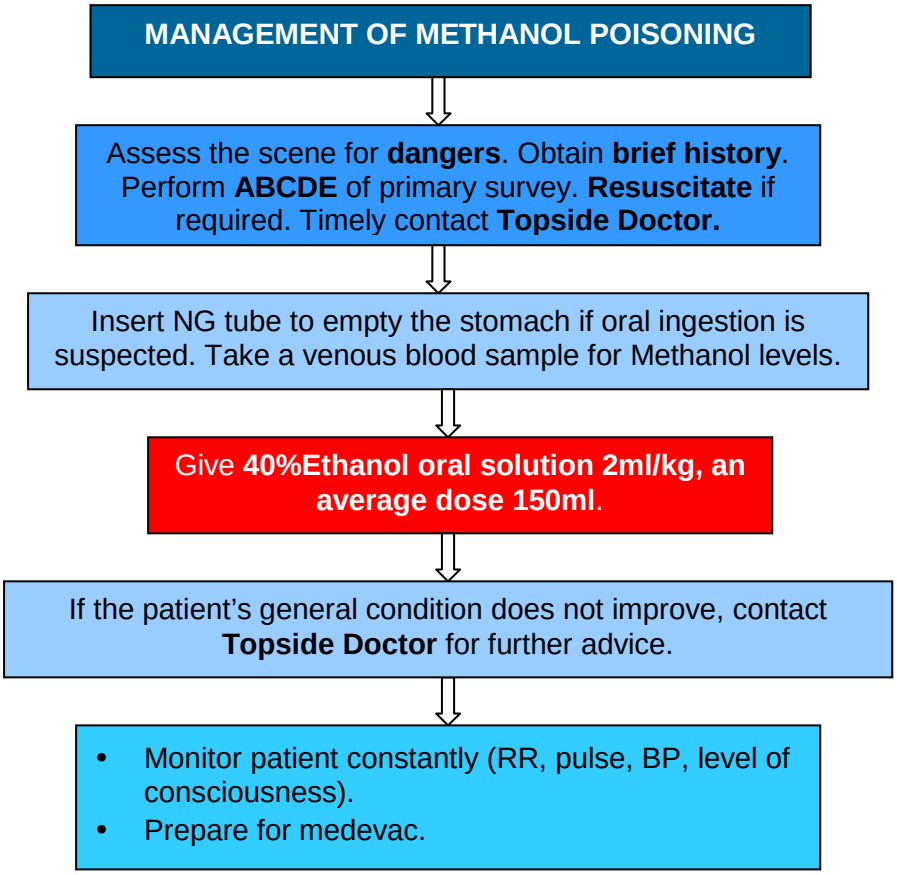


SPECIFIC TREATMENT USED FOR MANAGEMENT OF METHANOL POISONING

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
40 % ETHANOL	**Indications: Treatment of Ethylene glycol or Methanol poisoning**	ETHANOL spirit bottle
	Dosage: Under advice from a Topside Doctor. Usually 2 ml/kg, an average dose for adult 150 ml.	
	C.I.: N/A as only used in emergency situation	
	Side Effects: N/A as only used in emergency situation.	
	Advice: Use under direction from Topside Doctor. Should be kept in locked cupboard.	

SECTION III GUIDANCE

HYDROGEN SULPHIDE POISONING

Definition

Hydrogen Sulphide is present in some oil fields. It can be released during drilling activity. Low levels of this gas are lethal.

Signs and Symptoms

In milder degrees of poisoning there is a smell of rotten eggs (which rapidly fades), headache, breathlessness, cough and eventually coma and convulsions. Pulmonary oedema can occur up to three days after exposure.

Assessment

- ***If you need to provide emergency care at the scene, check for any dangers first.***
- ***Do not delay ABC of life support if required.***
- ***Brief history:*** Amount taken? Time of exposure? Recent complaints? Any past medical history? Any medications? Occupation?
- ***Examination:***
  - Start **ABCDE** of primary survey immediately and resuscitate, if necessary. Perform secondary survey as soon as possible;
  - Monitor vital signs, especially RR, pulse, BP and level of consciousness.
- ***Investigations:***
  - Pulse oximetry;
  - ECG;
  - Fluid balance.

Management

Medic should commence treatment as soon as possible:

- If emergency care should be provided at the scene, **check for dangers** and do not put yourself at risk. Remove from source (not jeopardising your own health). Use appropriate **PPE**.
- Get help and contact the Topside Doctor for advice. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside Doctor on your behalf.

SECTION III GUIDANCE

- Start **ABCDE** of primary survey. Assess airway, breathing and circulation immediately. Resuscitate, if required.

- Open and clear airway. Use **basic airway** to ensure patency of airway. Use suction if necessary. Commence **high flow oxygen (15 l/min)** by non-rebreathing/Hudson mask or ventilate if no adequate spontaneous breathing. Consider usage of a **definitive airway**. Obtain **IV access** and support circulation if required.

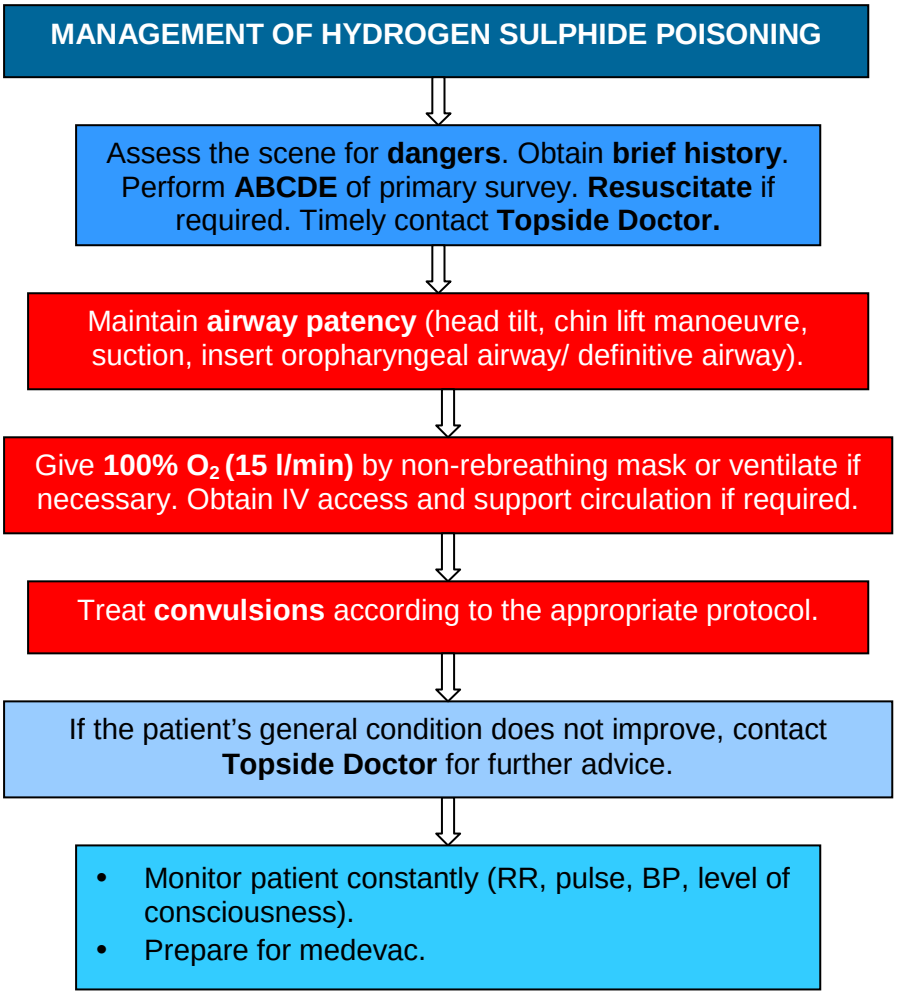
- If convulsions are present due to Hydrogen Sulphide poisoning, use Convulsions Protocol, pg.81.

- If patient is not improving, contact Topside Doctor for further advice.

- Arrange medevac.

- Monitor the patient constantly (RR, HR, BP, pulse oximetry, level of consciousness) until medevac.

SECTION III GUIDANCE



SECTION III GUIDANCE

HYDROFLUORIC ACID BURNS

Definition

Hydrofluoric acid is used for well stimulation and other purposes offshore. If precautions are not taken, it is easy to suffer a serious chemical burn from this acid. In addition it is rapidly absorbed. This causes disturbance of Calcium and Magnesium metabolism resulting in tetany and cardiac arrhythmias. When this substance is being used, you should be immediately available to administer treatment for any burns.

Signs and Symptoms

Severe chemical burns, tetany, cardiac arrhythmias.

Assessment

- ***If you need to provide emergency care at the scene, check for any dangers first.*** Use appropriate **PPE**.
- ***Do not delay ABC of life support if required.***
- ***Brief history:*** Time of exposure? Recent complaints? Any past medical history? Any medications? Occupation?
- ***Examination:***
  - Start **ABCDE** of primary survey immediately and resuscitate, if necessary. Perform secondary survey as soon as possible;
  - Monitor vital signs, especially RR, pulse, BP and level of consciousness.
- ***Investigations:***
  - Pulse oximetry;
  - ECG;
  - Fluid balance.

Management

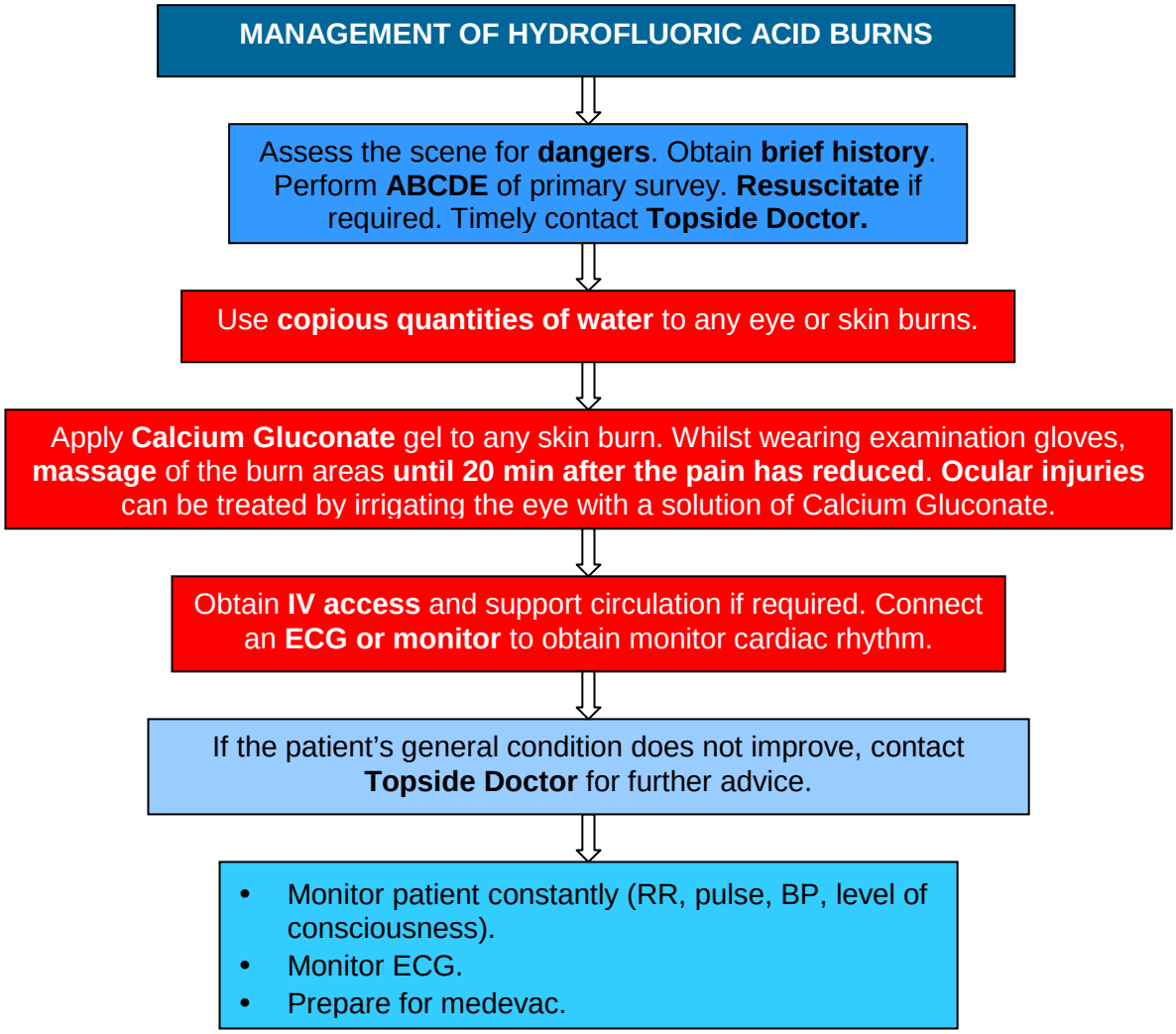
Medic should commence treatment as soon as possible:

- If emergency care should be provided at the scene, **check for dangers** and do not put yourself at risk. Use appropriate PPE.
- Get help and contact the Topside Doctor for advice. If you are unable to leave the patient due to a severe condition, ask one of the First Aiders to contact Topside Doctor on your behalf.

SECTION III GUIDANCE

- Start **ABCDE** of primary survey. Assess airway, breathing and circulation immediately. Resuscitate, if required.
- **Copious quantities of water** should be applied to any eye or skin burns. Do not wash the acid from the affected eye to the non affected eye. Prevent any further contamination; collect contaminated fluids into special container.
- Apply **Calcium Gluconate** gel to any skin burn. Whilst wearing examination gloves, massage of the burn areas should be continued with Calcium Gluconate gel until 20 min after the pain has reduced.
- **Ocular injuries** can be treated by irrigating the eye with a solution of Calcium Gluconate.
- Obtain **IV access** and support circulation if required.
- Connect an **ECG or monitor** to obtain monitor cardiac rhythm.
- If patient is not improving, contact Topside Doctor for further advice.
- Arrange medevac.
- Monitor the patient constantly (RR, HR, BP, pulse oximetry, level of consciousness) until medevac.

SECTION III GUIDANCE



SPECIFIC TREATMENT USED FOR MANAGEMENT OF HYDROFLUORIC ACID BURNS

MEDICATION	IMPORTANT INFORMATION	MEDICAL FORM
CALCIUM GLUCONATE	Indications: Hydroflouric acid burns to skin	Supplied as a kit
	Dosage: Apply gel immediately to burn. Continue to apply until 20 min after pain has reduced	
	C.I.: N/A as only used in emergency situation	
	Side Effects: N/A as only used in emergency situation.	
	Advice: Use under direction from Topside Doctor.	

SECTION III GUIDANCE

7.0 PRACTICAL PROCEDURES

OROPHARYNGEAL/GUEDEL AIRWAY INSERTION

Indication

Use when the patient is semi-conscious with no gag reflex.

Procedure

1. Select the proper-sized airway. The correct sized tube is estimated by comparing the length of the tube with the distance from the centre of the two front teeth to the angle of the patient's jaw.

2. Open the patient's mouth with the head tilt chin lift manoeuvre or jaw thrust if trauma

3. Insert the airway with the concave surface facing upwards until the soft palate is reached. The airway should then be rotated 180 degrees so that the tip points inferiorly.

4 Check if the patient is breathing after insertion. If spontaneous breathing is present, provide free flow oxygen with non-rebreathing/Hudson mask. If no spontaneous breathing is present, ventilate the patient with a pocket face mask or bag-valve-mask device.

NASOPHARYNGEAL AIRWAY INSERTION

Indication

Use when the patient is semi-conscious with no gag reflex.

Procedure

1. The wider nostril is traditionally chosen but most airways are bevelled for introduction into the left nostril.

2. Lubricate airway and pass directly into nasal passage passing along the floor of the nose or aiming for the back of the opposite eyeball.

3. Check if the patient is breathing after insertion. If spontaneous breathing is present, provide free flow oxygen with non-rebreathing/Hudson mask. If no spontaneous breathing is present, ventilate the patient with a pocket face mask or bag-valve-mask device.

SECTION III GUIDANCE

BAG AND MASK VENTILATION

Indication

Use when the patient has no adequate spontaneous respirations.

Procedure

1. Select the appropriately sized mask to fit the patient's face.

2. Connect the oxygen tubing to the bag, and adjust the flow of oxygen to 12-15 L/minute.

3. Assure that the patient's airway is patent and secured by previously inserted basic airway.

4. The **first person** applies the mask to the patient's face, ascertaining a tight seal with both hands using a double C grip.

5. The **second person** ventilates the patient by squeezing the bag with both hands slowly and firmly.

6. The adequacy of ventilation is assessed by observing the patient's chest movement.

7. The patient should be ventilated in this manner every five-six seconds.

SECTION III GUIDANCE

LARYNGEAL MASK AIRWAY (LMA)

Indication

For the unconscious patient requiring resuscitation endotracheal intubation is regarded as the gold standard for advanced airway management. This is regarded as an advanced technique and many care providers in the pre hospital situation may not have experienced the substantial training required. The training required to insert a laryngeal mask airway (LMA) is considerably less and therefore the recommended method for advanced airway management in this situation is the LMA.

The LMA comprises of an oropharyngeal tube connected to a spoon shaped cuffed mask. When inflated this mask holds the airway in position in the lower pharynx, providing an effective means of ventilation together with some protection from aspiration.

Manual methods of airway opening should be used prior to inserting an LMA. If the gag reflex present an LMA cannot be inserted

Benefits of the LMA

- Easy to insert without a laryngoscope
- Easy to ventilate
- A high concentration of oxygen can be delivered
- The airway is more secure than when simple adjuncts are used with a reduced risk of gastric distension and aspiration

Procedure

1. Choose suitably sized LMA for patient and prepare appropriate inflation volume in syringe as below:

LMA size		Cuff Inflation volume (ml)
3	Small adult	20
4	Normal adult	30
5	Large adult	40

2. Ensure suction is functioning and readily at hand

3. Pre-oxygenate patient for at least 2 min.

4. Prepare LMA by deflating the cuff and shape with the tip pointing backwards.

5. Lubricate the rear of the mask with KY jelly or equivalent (avoid lubricant to front).

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6. Stabilise cervical spine manually (first aider assistance required).

7. Hold LMA like a pen with the index finger placed anteriorly at the junction of the cuff and the tube.

8. Insert the LMA behind the upper incisors with the solid line facing towards the nose and the mask lying completely flat against the hard palate.

9. Slide the LMA backwards along the roof of the mouth applying pressure upwards and backwards until the LMA is deflected into the oropharynx.

10. Continue to slide the LMA downwards whilst maintaining backwards pressure until the tip comes to rest in the hypopharynx.

11. Remove the inserting finger whilst holding the mask in place with the other hand.

12. Inflate the cuff with the recommended volume of air (note the settling of the mask through a slight upwards and outwards movement of the tubing as this is performed).

13. Connect the LMA as required to a ventilation device.

14. Inflate lungs and listen over both apices, upper midaxillary lines and epigastrial area to establish bilateral air entry.

15. Secure the LMA in place.

16. Insert and secure bite block.

Important note

The insertion of the LMA should take no more than **30 sec** from start to finish. If 30 sec pass and the tube is not in the correct position, remove all the equipment and bag/mask ventilate the patient until you are ready to try again.

Complications

- Leaks can occur around the cuff, which may lead to gastric distension. Therefore there is a small risk of pulmonary aspiration.

- The LMA can become dislodged when a casualty is moved therefore the airway must be re-evaluated after movement.

SECTION III GUIDANCE

OROTRACHEAL INTUBATION

Indication

- Relieving airway obstruction;
- Protecting airways from aspiration;
- Facilitating artificial ventilation of the lungs.

Procedure

1. Assure that adequate ventilation and oxygenation are in progress, and that suctioning equipment is immediately available in the event the patient vomits. Pre-oxygenate the patient for at least 2 min.

2. Inflate the cuff of the endotracheal tube to ascertain that the balloon does not leak, then deflate the cuff.

3. Connect the laryngoscope blade to the handle, and check the bulb for brightness.

4. Have an assistant manually immobilize the head and neck. The patient's neck must not be hyperextended or hyperflexed during this procedure if trauma has occurred to either the head or neck.

5. Hold the laryngoscope in the left hand.

6. Insert the laryngoscope into the right side of the patient's mouth. Move the blade to the left up to midline so that the tongue is displaced to the left. Advance the blade until epiglottis comes into view. Apply traction in the line of the handle of the laryngoscope.

7. Visually examine the epiglottis and then the vocal cords.

8. Gently insert the endotracheal tube into the trachea without applying pressure on the teeth or oral tissues. There is usually a mark on the tube. This should be aligned with the vocal cords and indicates that the tube has been inserted far enough.

9. Inflate the cuff with enough air to provide an adequate seal. **Do not over inflate the cuff.**

10. Check the placement of the endotracheal tube by bag-to-tube ventilation by auscultating over both apices, upper midaxillary lines and the epigastrium. Visually observe lung expansion with ventilation.

11. Secure the tube. If the patient is moved, the tube placement should be reassessed.

SECTION III GUIDANCE

12. Insert and secure bite block.

Important note

The insertion of the ET tube should take no more than **30 sec** from start to finish. If 30 sec pass and the tube is not in the correct position, remove all the equipment and bag/mask ventilate the patient until you are ready to try again.

Complications

- Oesophageal intubation, leading to hypoxia and death.
- Right mainstem bronchus intubation, resulting in ventilation of the right lung only, collapse of the left lung and pneumothorax.
- Inability to intubate, leading to hypoxia and death.
- Induction of vomiting, leading to aspiration, hypoxia and death.
- Dislocation of mandible.
- Laceration of the soft tissues of the airway, posterior pharynx, epiglottis, and/or larynx.
- Trauma to the airway resulting in haemorrhage and potential aspiration.
- Chipping or loosening of the teeth (caused by levering of the laryngoscope blade against the teeth).
- Rupture/leak of the endotracheal tube cuff, resulting in loss of seal during ventilation, and necessitating re-intubation.
- Cervical spine injury.
- Conversion of a cervical vertebral injury without neurological deficit to a cervical cord injury with neurological deficit.

SECTION III GUIDANCE

CRICOTHYROIDOTOMY

Indication

Upper airway obstruction. Acute upper airway obstruction may be due to, epiglottitis, inhaled foreign body, smoke inhalation, angioneurotic oedema, anaphylaxis, peritonsillar abscess/quinsy, trauma or carcinoma.

The patient will present in a severe distress with ineffective respiratory effort, stridor, cyanosis followed by unconsciousness.

If the patient is not fully conscious he may be extremely anxious and uncooperative and possibly confused with hypoxia.

NEEDLE CRICOTHYROIDOTOMY PROCEDURE

1. Assemble and prepare oxygen tubing by cutting a side hole toward one end of the tubing. Connect the other end of the oxygen tubing to an oxygen source, capable of delivering 50psi or greater at the nipple, and assure free flow of oxygen through the tubing.

2. Place the patient in the supine position.

3. Assemble a #14 gauge, intravenous cannula (e.g. Brown Venflon) to a 5 to 10 ml syringe.

4. Surgically prepare the neck, using antiseptic swabs.

5. Palpate the cricothyroid membrane anteriorly, between the thyroid cartilage and cricoid cartilage. Stabilise the trachea with the thumb and forefinger of one hand to prevent lateral movement of the trachea during the procedure.

6. Puncture the skin midline with the needle attached to a syringe, directly over the cricothyroid membrane.

7. Direct the needle at a 45-degree angle inferiorly, while applying negative pressure to the syringe.

8. Carefully insert the needle through the lower half of the cricothyroid membrane, aspirating as the needle is advanced.

9. Aspiration of air signifies entry into the tracheal lumen.

10. Remove the syringe and withdraw the stylet while gently advancing the catheter downward into position, being careful not to perforate the posterior wall of the trachea.

11. Attach the oxygen tubing over the catheter needle hub, and secure the catheter to the patient's neck.

12. Intermittent ventilation can be achieved by occluding the open hole cut into the oxygen tubing with your thumb for one second and releasing if for four seconds. After releasing your thumb from the hole in the tubing, passive exhalation occurs.

Note: Adequate PaO_2 can be maintained by only 20-30 minutes.

13. Continue to observe lung inflations and auscultate the chest for adequate ventilation.

Complications

- Oesophageal perforation.
- Exsanguinating haematoma.
- Posterior tracheal wall perforation
- Subcutaneous and/or mediastinal emphysema.
- Inadequate ventilations leading to hypoxia and death.
- Pneumothorax

MINITRACH CRICOTHYROIDOTOMY PROCEDURE

1. Ensure that the anatomical structures are well displayed and easily palpable by laying the patient flat with his neck extended.

2. Identify the cricothyroid membrane between the lower border of the thyroid cartilage and the upper border of the cricoid cartilage. These two structures are separated by the cricothyroid membrane.

3. If time permits infiltrate the skin with local anaesthetic.

4. Make a horizontal incision through the skin and cricothyroid membrane using a scalpel.

5. A minitrach tube is then inserted through this into the trachea.

6. Aspiration of air with a syringe filled with saline on entering the trachea should be done to assess correct placement.

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7. The minitrach can then be connected to a ventilator if required.

Complications

- Asphyxia.
- Aspiration (e.g. blood).
- Creation of a false passage into the tissues.
- Subglottic stenosis/oedema.
- Laryngeal stenosis.
- Haemorrhage or haematoma formation.
- Laceration of the oesophagus.
- Laceration of the trachea.
- Mediastinal emphysema.
- Vocal cord paralysis, hoarseness.

SECTION III GUIDANCE

SETTING UP A DRIP

Indication

To introduce or replace fluids into the circulation, e.g. electrolyte solutions, colloids, etc.

Contraindications

There are no absolute contra-indications, but care is necessary under some circumstances - e.g. if heart failure is present or incipient an extra circulatory load may result in a severe pulmonary oedema when infusion is essential.

Equipment

Sterile Fluid Giving Set

The fluid is usually presented in collapsible bags or bottles, but it is sometimes in rigid bottles which need an air inlet to prevent a vacuum forming when the fluid flows out into the giving set. To prepare the giving set, close the adjustable valve before pushing the connector firmly into the bag or bottle outlet. Squeeze the drip chamber to obtain a fluid level in it. Raise the Luer connector with its sterile cover above the fluid level and open the valve. The fluid will fill the plastic tubing up to the level in the drip chamber and by lowering the Luer connector to that level, the whole tubing will be filled without the formation of bubbles. Any small bubbles will float to the fluid surfaces if the tube is held vertical and tapped sharply. Turn the valve. The set is ready for use.

Cannula, e.g. Medicut/Venflon

A combined plastic and metal cannula is inserted through the skin and into a vein, the metal part of which is withdrawn after insertion. The metal cannula must not be re-inserted as the sharp needle may sever the plastic cannula. The severed part may then embolise to the heart or lung.

Procedure

1. Choice of vein. The most convenient site is the antecubital fossa. The site may, however, be dictated by the availability of suitable veins.

2. Veins are much easier to cannulate at a site where they penetrate fascia, or at a confluence as they are then fixed and cannot roll sideways from the needle point.

3. Venepuncture. After clothes have been removed from the limb, a tourniquet should be applied to distend the veins. Careful sterile procedures are important and a generous area around the chosen site should be cleaned. Heavy hair growth should be shaved before this is done. The needle and cannula should first

be injected through the skin. The metal needle is then adjusted until it is touching the vein with the flat side of the bevel pointing to the surface. Sharp oblique pressure causes the bevel to enter the vein and pressure is continued until the plastic shoulder of the cannula has followed. The metal needle is then withdrawn from the cannula and disposed to the sharp box, while leakage of blood is prevented by pressing the finger on the vein over the tip of the cannula. The giving set is connected and the tourniquet removed.

4. Fixing and Dressing. The cannula must be fixed securely, as movement may damage it and lead to leakage and inflammation. A crepe bandage may be applied overall and helps to warm the fluid as it flows towards the vein. Splints should be avoided if possible as movement of the limb discourages stasis of blood and possible thrombosis.

5. Failure to Flow. Check that the tourniquet has been removed, that the giving set valve is open, and that rigid bottles have an adequate air inlet. The appearance of a large bleb of subcutaneous fluid shows that the cannula is not in the vein lumen and should be re-sited. Finally the cannula should be vigorously flushed with fluid in case it is blocked by a clot.

SECTION III GUIDANCE

ELECTROCARDIOGRAPHY (ECG)

Indication

The ECG's main value lies in the detection of cardiac arrhythmias, conduction defects and the diagnosis and localisation of myocardial infarction.

Procedure

1. Lie the patient at rest and connect the limb leads to the appropriate limb. R to right wrist, L to left wrist and F to left foot. Ensure that there is enough conducting jelly on the electrode plates to maintain good contact.

2. Connect the chest leads in the standard V_1 to V_6 positions as indicated below:
   V1 to 4th intercostal space at right border of sternum
   V2 to 4th intercostal space at left border of sternum
   V3 to midway between V2 and V4
   V4 to 5th intercostal space on the mid-clavicular line
   V5 at the anterior axillary line directly posterior to V4
   V6 at the mid-axillary line directly posterior to V5

3. After connecting the patient, check the machine is switched on, the filters are engaged and press the AUTO key for a fully automatic recording. Try to get a long reading on II (rhythm strip) at the end of the ECG.

Reporting and Interpretation of Result

If ECG machine produces a long strip of paper, cut up the sections and paste onto a sheet of A4 paper. Put the patient's name, DOB, the date and time on the ECG.

The record should be read by a registered medical practitioner as difficulties with interpretation commonly arise. Following discussion with the Duty Doctor you may be asked to fax this to Aberdeen Royal Infirmary (ARI) on 01224 685307. Ensure that the coronary care doctor is told that the ECG has been faxed. If you have an agreement to e- mail ECGs to ARI A&E department, use the approved e mail address and phone them to ensure they know to check the ECG.

SECTION III GUIDANCE

URETHRAL CATHETERISATION

Indications

- Relief of acute or chronic retention;
- Monitor urinary output in a shocked patient;
- Acute urinary incontinence.

Contraindications

Urethral tear.

Procedure in male

1. Wash hands thoroughly. Explain the procedure to the patient and obtain consent.

2. Unwrap all equipment onto a cleaned (antiseptic) trolley in an aseptic fashion and pour saline over cotton balls.

3. Position the patient supine with the legs separated slightly to accommodate the sterile receptacle for urine collection.

4. Wash hands again and put gloves on. Lay the towel and drape over the patient so the genitalia are exposed.

5. The prepuce (if present) is fully retracted and, together with the glans and urethral meatus, thoroughly cleansed with an antiseptic solution or Saline - e.g. 0.5% Aqueous Chlorhexidine or another suitable antiseptic such as Savlon. Sterile drapes are placed around the penis, which is wrapped in a sterile gauze swab soaked in antiseptic solution. This makes the penis easier to hold and keeps the foreskin retracted during the procedure.

1. 15ml of Instillagel or gel containing 2% Lignocaine with or without 0.5% Chlorhexidine is introduced into the urethra and retained for 5 minutes. The Lignocaine anaesthetises the urethra and lubricates it for the passage of the catheter. Chlorhexidine inhibits the growth of any bacteria carried into the urethra and bladder by the catheter. Lignocaine is absorbed through the mucosa and should not be used in quantities of more than 15ml or strengths greater than 2%.

2. Change gloves. It is useful at this point to check that you have all that you require on a catheter trolley. The time spent doing this will allow the Lignocaine to work and ensure a smooth catheterisation. The catheter may be handled by a sterile, gloved hand or advanced in a no touch technique by using forceps under the polythene sheath in which the catheter is packed. The penis should be in vertical position and slightly stretched with the opposite hand to straighten out mucosal folds.

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3. Usually there is little resistance to the catheter when its tip meets the external sphincter. It may help if the patient coughs or takes a deep breath in. As he breathes out, the catheter can usually be gently pushed through the sphincter. Occasionally a prominent middle lobe of prostrate or bladder may cause some obstruction. Gentle force may be required, but not excessive force as this may cause urethral damage. Once the catheter has been fully inserted, the catheter balloon can be inflated with the appropriate volume of sterile water. A specimen of urine can then be collected at this time for laboratory analysis and the catheter is then connected to a closed drainage system. Remember to advance the foreskin at the end of the procedure to prevent the development of paraphimosis.

Procedure in female

6. Wash hands thoroughly. Explain the procedure to the patient and obtain consent.

7. Unwrap all equipment onto a cleaned (antiseptic) trolley in an aseptic fashion and pour saline over cotton balls.

8. Position the patient supine with knees flexed and hips abducted with heels together.

9. Wash hands again and put gloves on. Lay the towel and drape over the patient so the genitalia are exposed.

10. From here on, use your non-dominant hand to hold the labia apart, approaching the patient from the right hand side, leaning over their ankles so as to reach the genitalia from below.

11. Clean the genitalia with wet cotton balls (using each once only), working in a pubis-anus direction.

12. Carefully position the nozzle of the lubricant gel inside the meatus and instilling most of the 5 ml.

13. Position the bowl between the patient's thighs to catch spillages. Change gloves.

14. The catheter will be in a plastic wrapper with a tear-away portion near the tip. Remove this portion, being careful not to touch the catheter and apply a little Lidocaine gel to the catheter tip.

15. Insert the tip of the catheter into the urethral meatus and advance slowly but firmly feeding it out of the remaining wrapper.

16. On entering the bladder, urine should start drain. Advance the catheter fully to ensure the balloon is beyond the urethra.

SECTION III GUIDANCE

17. Inflate the balloon with the 10 ml of water via the catheter side-arm. Warn the patient to alert you to any pain and watch her face.

18. Remove the syringe and withdraw catheter until resistance is felt.

19. Attach draining tube and catheter bag.

20. Clean and redress the patient as necessary.

21. Record the residual urinary volume.

Complications

1. Infection
2. False passage
3. Haemorrhage
4. Blocked catheter

The complications of infection and bacteraemia are difficult to eliminate, but good aseptic techniques will help to reduce their incidence.

Traumatic catheterisation with rupture of the urethra and the catheter tip placed outside the urethra or bladder will result in extravasation of urine with tissue necrosis and gangrene if unrecognised. Urethral rupture is a surgical emergency.

SECTION III GUIDANCE

PASSING A NASOGASTRIC TUBE

Indications

The main indication for passing a nasogastric tube is to aspirate stomach content as a therapeutic measure in the acute abdomen, to drain stomach contents and decompress intestinal obstruction, etc.

Contraindications

Severe facial trauma and basal skull fracture.

Equipment

A large tube (14F or 16F) gauge rather than a small tube should be used. This is less likely to block during use or form a false passage during introduction. A simple water soluble lubricating jelly (e.g. KY Jelly) is usually used but Lignocaine Gel 2% antiseptic may be more comfortable to the patient especially if the tube does not pass at the first attempt. A 60ml syringe should be used for aspirating, and blue litmus paper used to test the aspirated fluid for acid, to confirm that the tip of the tube is in the stomach.

Procedure

A sterile technique is not required, although simple hygiene measures should be observed and the procedure should be explained to the patient. Use the tube to measure the depth of insertion by measuring the distance from xiphisternum to earlobe and tip of the nose, mark it. Lubricate the nose with Lignocaine Gel via the applicator and allow this to take effect. Gravity will assist the passage of the fluid to the back of the nose.

With the patient sitting, introduce the lubricated tube along the floor of the nose. Resistance will be felt as the tip reaches the nasopharynx, which is the least comfortable part of the procedure. Ask the patient to swallow while continuing to advance the tube, which should then pass down the oesophagus without resistance. Insert the tube up to the mark. Aspirate the stomach contents and test the aspirate for acid. Anchor the tube to the nose with adhesive tape.

Problems

Choking usually indicates that the tube has entered the trachea and should be withdrawn immediately. Difficulties in passing the tube may occur at any point along the route.

SECTION III GUIDANCE

Pass the tube along the floor of the nose and not towards the bridge. If one nostril is narrowed by a deviation of the nasal septum, use the other side. In the event of persistent difficulty, select a smaller tube.

Reflex gagging by the patient may direct the tube into the mouth. There are various ways of dealing with this problem. Try the following in order:

1. Repeated attempts. Withdraw the tip into the nasopharynx and advance again until it is passed into the oesophagus.

2. Cool the tube in a refrigerator or ice to stiffen if. It is then less likely to coil.

3. Observe the passage of the tube through the mouth with a depressor. In the oesophagus, a stricture or pharyngeal pouch may prevent the tube from passing. If so the attempt should be discontinued.

Obstruction of the tube may be due to blockage. This can be cleared by flushing. A twisted tube should be partially withdrawn until it functions again and then relocating it and confirming its position.

Complications

- Perforation of the oesophagus is extremely unlikely in the absence of oesophageal disease;
- Aspiration;
- Tissue trauma;
- Tracheal or duodenal intubation

SECTION III GUIDANCE

8.0 TREATMENT OF INFECTION

This guidance indicates the circumstances where a Medic may treat an infection with over the counter/prescription only / controlled medications.

This is with the proviso that the Medic has made a complete relevant examination, is confident of the diagnosis and is happy to initiate treatment on his/her own. Included in this guidance are relevant clinical features and differential diagnoses to assist the Medic. If there is any doubt, the Medic should contact the Topside Medical Emergency Service. Some guidance has been included on the treatment of colds where there is a confusing array of medicines, many of dubious benefit and considerable expense.

Please refer to the Standing Order on the prescription and dispensing of medicines, the Capita Medicines Formulary or the British National Formulary before issuing a drug. Unless otherwise stated, treatment is for one week. Ensure that the complete course is taken. Do not prescribe any drugs to pregnant women without a doctor's prior authorisation.

Food handlers may need to be removed from their duties. If in doubt, contact a doctor.

Index of Topics Covered

a) Viral Upper Respiratory Tract Infection
b) Acute Bronchitis
c) Sinusitis
d) Tonsillitis
e) Dental Infection
f) Otitis Externa
g) Otitis Media
h) Simple Conjunctivitis
i) Stye
j) Superficial Bacterial Skin Infection
k) Paronychia
l) Superficial Fungal Skin Infection
m) Thrush
n) Balanitis
o) Cold Sore
p) Urinary tract infection
q) Sexually Transmitted Disease
r) Gastro-enteritis

SECTION III GUIDANCE

a) Viral Upper Respiratory Tract Infection

Definition

Upper respiratory tract infection mainly caused by different viruses.

Clinical Features:

- Watery nasal discharge with nasal congestion and sneezing.
- Cough - initially dry.
- Sore throat.
- Mild fever

Differential diagnosis

Lower respiratory tract infection, acute bronchitis, pneumonia.

Treatment

1. Steam inhalations with or without an aromatic additive (e.g. Karvol) for nasal congestion and coughing.

2. Ephedrine nasal drops or Pseudoephedrine tablets if the above is ineffective for nasal congestion. Enquire if the patient is hypertensive, has a cardiac complaint or is on Monoamine Oxidase Inhibitor (antidepressant).

3. Simple linctus or if this does not work, Pholcodine or Codeine linctus for a persistent and unresponsive cough.

4. Paracetamol for a sore throat and mild fever.

5. Antibiotics are only necessary if the sputum or nasal discharge becomes purulent, if pyrexia and recent sweats are present, if the patient is systemically upset (i.e. if you think he or she has a serious bacterial infection). Overuse of antibiotics leads to bacterial resistance.

6. Oral fluids.

SECTION III GUIDANCE

b) Acute Bronchitis

Definition

Acute inflammation of the bronchial tree.

Clinical Features:

- Irritating and unproductive cough with retrosternal discomfort.
- Later may become a productive purulent cough.
- Wheezing.
- Dyspnoea.
- Fever, usually less than 38^{o}C and the patient is not seriously ill.

Differential diagnosis:

- Influenza
- Acute lobar pneumonia - high fever (38 C +), tachycardia (100 bpm+) patient ill, rapid respiration (greater than 20 per minute), possibly cyanosis and pleuritic pain. See Severe Pneumonia Protocol, pg. 94)
- Asthma - expiratory wheeze, a mild fever may be present, previous medical history of asthma, relationship to allergens, sticky pale green mucus.

Treatment

1. Amoxycillin / Amoxicillin 500mg three times daily/ Co-Amoxiclav 625 mg three times daily

Or

Erythromycin 250mg four times daily/ Clarithromycin 250 mg twice daily

2. Steam inhalation

c) Sinusitis

Definition

There are 4 groups of sinuses but only 2 are commonly infected, usually following a cold: maxillary and frontal.

Maxillary Sinusitis Clinical Features:

- Headache or feeling of heaviness below the eyes. Worse with coughing, nose blowing or lowering the head.
- Purulent nasal discharge occasionally blood stained.
- Tenderness over the affected sinus and occasionally slight swelling over the sinus.
- Low grade fever but occasionally high.

Differential Diagnosis:

Dental abscess of upper jaw - examine teeth

Frontal Sinusitis Clinical Features:

- Frontal headache
- Tenderness over affected sinus.
- A purulent, often blood stained nasal discharge.
- Fever.
- Occasionally swelling over the sinus.

Treatment:

1. Amoxicillin 500 mg or Co-Amoxiclav 625 mg three times daily.
   or

   Doxycycline 200 mg on 1st day then 100 mg per day

2. Fluids

3. Steam inhalation

d) Tonsillitis

Definition

Infection of the tonsils resulting in inflamed tonsils often with an exudate. More than half the cases are caused by viruses.

Without the result of a throat swab it is impossible to differentiate a viral infection (antibiotics not required) from a streptococcal infection (requiring antibiotics). The streptococcal infections tend to be associated with a more severe sore throat, systemic signs and symptoms (e.g. pyrexia > 37.5, tachycardia > 90/min, anorexia, nausea) or symptoms persisting for more than 3 days. It is recommended that these patients receive antibiotics.

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Clinical Features:

- Sore throat
- Fever - can be high.
- Inflamed tonsils, with or without exudate.
- Occasionally systemic symptoms such as bodily aches, headaches, malaise, feeling hot and cold, nausea.
- Cervical lymphadenopathy.

Differential Diagnosis:

- Infectious Mononucleosis (glandular fever).
- Influenza

Treatment:

1. Fluids.

2. Aspirin or Paracetamol

3. Penicillin V 500mg four times daily or Erythromycin 500mg four times daily or Clarithromycin 250 mg twice daily.

4. Avoid Amoxycillin / Amoxicillin, Ampicillin or Augmentin as they might cause severe rash in the case of infectious mononucleosis.

Complications

- Quinsy (peritonsillar abscess)
- Scarlatinaform rash.

e) Dental Infection - Root abscess, gingivitis.

Clinical manifestation

- Abcess - pain, usually described as from the 'gums' and not the tooth; some swelling of the gums is usually apparent, but often isn't extensive, and may not be very visible. Redness, tenderness and swelling over the affected area. The tooth affected may be slightly loose or mobile, or a group of affected teeth may be apparent. There may be pus discharge from the gumline. There may also be associated pain with hot/cold stimulus to the teeth, as the nerve or pulp is often inflamed due to the infection in the surrounding gum tissues.

- Gingivitis - pain, bad breath, often generally feel unwell. General redness of the gums, gums bleed very easily, and all the gum tissues can be very painful to touch, or too painful to allow tooth brushing.

Treatment

a) Analgesia

b) Metronidazole 200mg three times daily for 3 days (gingivitis) or 7 days (abscess). Second line treatment - Erythromycin 500mg four times daily for one week or Penicillin V 500 mg four times daily.

Complication - maxillary sinusitis.

Ensure that all such patients see their dentist on return ashore.

n) Cold Sore - Herpes Simplex (oral)

Definition

Infection of the skin around mouth caused by Herpes simplex virus.

Clinical Features

- Recurrent vesicular rash around the mouth or face.
- Tingling prior to the appearance of the lesion.

Treatment

1. Acyclovir (Zovirax) Cold Sore Cream. Apply 5 times per day for 5 days at the earliest sign of the rash.

f) Otitis Externa

Definition

Harmless superficial infection of the skin of the external auditory meatus. Particularly common in divers where the causative organism is often Pseudomonas. Treatment of divers will normally be undertaken in consultation with Diving Supervisor or Topside Doctor.

Clinical Features:

- Scanty aural discharge often with crusting around the external meatus.
- Aural irritation or discomfort (mild).
- Hearing loss.

Investigation

All divers and patients with recurrent infection should have an ear swab taken first. Put your Medical Adviser's name on the form and have a copy of the result sent to Capita. Do not forget to identify yourself and the rig involved.

Differential Diagnosis - boil in the external auditory canal. Treat this with Flucloxacillin and Penicillin.

Treatment

1. Gentisone HC. Apply into the ear 3-4 times per day and at night.

2. Unresponsive patients may need aural toilet by an ENT unit ashore.

Important Note:

DO NOT apply if the patient has a perforated tympanic membrane or for prolonged periods of time. Ototoxicity may result.

g) Otitis Media

Definition

Otitis media is defined as inflammation in the middle ear.

Clinical Features:

- Earache;
- Hearing loss;
- Purulent discharge if tympanic membrane perforates;
- Fever;
- Irritability;
- Anorexia;
- Vomiting.

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Investigation

Otoscopy shows evidence of inflammation of tympanic membrane with loss of the light reflex and bulging of the drum.

All divers and patients with recurrent infection should have an ear swab taken first. Put your Medical Adviser's name on the form and have a copy of the result sent to Capita. Do not forget to identify yourself and the rig involved.

Differential Diagnosis – otitis externa (if copious discharge is present, otitis externa could be excluded)

Treatment

1. Oral analgesia, e.g. Ibuprofen 400mg tds
2. Oral antibiotics, e.g Amoxicillin 250mg tds following Topside Doctor's advice

Complications

- Perforation of tympanic membrane;
- Mastoiditis;
- Labyrintitis;
- Facial palsy;
- Meningitis;
- Intracranial abscess.

h) Simple Conjunctivitis

Definition

A viral or bacterial infection causes a superficial redness of the sclera and inner surface of the eyelid.

Clinical Features

- Discharge is often initially watery and later purulent. Lids may stick together during sleep.
- Conjunctival injection (redness) of one or both eyes.
- Photophobia - usually mild.
- Gritty discomfort - usually mild.

- Visual acuity normal.
- Pupil size and shape normal.

Differential Diagnosis

- Iritis - marked photophobia, often with reduced visual acuity. Pain may be mild to moderately severe. Conjunctival injection tends to be circumcorneal. There is often a previous Medical history of this disease, ulcerative colitis, ankylosing spondylitis.

- Glaucoma (acute). Marked pain, haloes, reduced visual acuity and a large, fixed ovoid pupil. The cornea may be hazy. Rare before middle age.

- Corneal ulcer, dendritic ulcer, foreign body, episcleritis. Marked pain, with or without a discharge. A foreign body may be seen. Corneal injection depends on the site of the lesion.

- Allergic - recurrent attacks of bilateral itchy and watering eyes. They appear mildly red. Often associated with asthma, hay fever and other allergic phenomena.

Treatment

1. Fucithalmic eye drops twice daily or Chloramphenicol 3 – 4 times per day. The ointment may obscure vision so the Fucithalmic preparation is better for those continuing to work.

   NB Chloramphenicol and other eye drops can occasionally cause irritation in their own right. So if the redness gets worse consider this possibility.

   Any undiagnosed eye condition or a failure to respond to treatment within 24 hours should be referred to the Topside Medical Emergency Service. Visual acuity measurement and Fluorescein staining should be performed.

i) <u>Stye</u>

Definition

A staphylococcal infection of the sebaceous gland of an eyelash follicle creating a small abscess.

Treatment

1. Fusidic Acid drops.
2. Warm compress

j) Superficial Bacterial Skin Infection

Definition

a) Sycosis Barbae (Barber's rash). Shaving can spread a staphylococcal infection from follicle to follicle.

b) Impetigo. Superficial crusting lesions usually of the face caused by staphylococcal or streptococcal infections. Patient is usually generally well otherwise, i.e. apyrexial and eating normally.

Differential Diagnosis

- Cellulitis (soft tissue infection) and lymphangitis. Deeper infection due to pyogenic bactetria causing a tender, red and swollen inflammation with an ill defined margin. Spread to the regional lymph nodes is indicated by a streak of redness up the limb to the groin or axilla. The patient may be generally unwell with fever, anorexia and tachycardia. Check baseline observations (HR and temperature) before calling topside service. Penicillin 500 mg and Flucloxacillin 500 mg four times per day are likely to be required if the patient is not medevaced.
- Erysepilas. This is another streptococcal skin infection causing a tender, red, swollen inflammation with a well defined margin. Usually found on the face or lower legs in older individuals. Check HR and temperature before calling topside service. Penicillin and Flucloxacillin 500mg each four times per day are likely to be required if the patient is not medevaced.

Treatment

1. Mupirocin (Bactroban) Ointment. Apply three times per day for 10 days or Fusidic Acid (Fucidin) Ointment. Apply 3-4 times per day.

2. If systemic involvement becomes apparent, prescribe Penicillin V 500 mg and Flucloxacillin 500 mg orally instead.

k) Paronychia

Definition

This is a staphylococcal abscess around the fingernail (or toenail).

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Treatment

The area can be anaesthetised. A syringe needle or blunt probe can then be introduced under the skin folds to release the pus and relieve the pain. Oral antibiotics are not usually necessary.

l) Superficial Fungal Skin Infection

Definition

There are a number of fungal infections which cause skin lesions:

- Candida albicans which causes intertrigo. This is an infection resulting in reddened skin in the groins, natal cleft and below the breasts.

- Tinea pedis, tinea cruris and tinea corporis. The former causes Athlete's Foot. Tinea cruris and tinea corporis cause a spreading roughly circular, itchy and scaling rash of the groin and trunk/limbs (ringworm).

Treatment

1. Keep the area dry and clean.

2. Apply Clotrimazole Cream, 2-3 times per day until the lesions have disappeared and for 14 days afterwards. Alternatively use Terbinafine (Lamisil) once or twice daily for one week.

m) Thrush

Definition

This is a Candidal infection.

Clinical Features

- Irritation and soreness
- Vaginal discharge
- Characteristic white lesions on PV examination. However, Medics should not perform a vaginal examination.

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Treatment

1. Clotrimazole 500mg pessary, once at night.

2. Clotrimazole 1% Cream for topical application.

3. Elimination of sources of re-infection (e.g. male partner or pre-disposing factors e.g. antibiotic treatment, oral contraceptive pill) is as important.

n) Balanitis

Definition

Candidal infection under the foreskin.

Clinical Features

- Pain of the glans penis.
- Discharge.
- Redness.

Treatment

1. Good personal hygiene.
2. Clotrimazole 1% 2-3 times per day or Terbinafine (Lamisil) 1 or 2 times per day.

o) Urinary Tract Infections

Clinical Features

- Dysuria.
- Frequency of micturition including nocturia.
- Haematuria in 20% of cases.

Investigation

Try to obtain a MSSU before treatment is commenced. Fill in the name of your medical adviser and have a copy of the report sent to Capita. Remember to

identify yourself and your installation. As these infections are uncommon in men, recurrent episodes in men may indicate more serious pathology. Therefore men with these infections should be discussed with the topside medical emergency service on the **second** occurrence of a urinary tract infection.

Differential Diagnosis

- Vaginitis.
- Pyelonephritis - check temperature, heart rate and loin tenderness.
- Sexually Transmitted Disease - see below.
- Epididymitis

Treatment

1. Fluids.
2. Trimethoprim 200mg BD for 3 days or (second line) Amoxycillin/ Amoxicillin 500mg/Co-Amoxiclav 625 tid for 3 days.

p) Sexually Transmitted Diseases

Definition and Clinical Manifestation

Sexually Transmitted Diseases (STD) can present with any combination of dysuria, frequency of micturition, urethral or vaginal discharge, anal discomfort or discharge, oral or genital ulcers, or a rash. However, many STD's are asymptomatic. Scabies and public lice may also be present.

Management

If you suspect an STD you should:

1. Obtain a medical history, particularly lifestyle, recent holidays and previous STD's. Examine the employee for rashes, ulcers and fever. Needless to say, this should be carried out with the utmost tact with reference to intimate examination and chaperone policy detailed in Section II.

2. Contact the Topside Medical Emergency Service and inform the Doctor of your suspicions. If the Doctor agrees, there are two options. These are to medevac the employee or to take a swab and commence treatment. Doctor will advise.

3. If you decide to take a swab, you should have an STD kit to hand. The instructions are on the swab kit. Post the swab kit and have the results sent to

your medical adviser. Include all the person's details, employer and the installation on the laboratory form.

4. With the permission of the Doctor on call, commence the employee on Erythromycin four times per day/ Ciprofloxacin 500 mg twice daily for 10 days.

5. Make an appointment with the Genito-Urinary or Special Clinic at Woolmanhill to coincide with the return of the employee ashore. Emphasise the importance of a full medical check up even though the employee may feel much better. Contact number for this Clinic is 0845 456 6000. The employee should have a covering letter for the Clinic.

6. A food handler will probably be best removed from contact with food.

q) Gastro-enteritis

Definition

This is an acute diarrhoeal illness due to various infections, some of which can be treated with antibiotics. Some infections require to be transmitted via food (food poisoning) but others can be transmitted directly by the faecal-oral route or in water. The simultaneous occurrence of two or more cases of gastro-enteritis should raise the possibility of food poisoning and should be discussed with your medical adviser.

Clinical Features

- Nausea.
- Vomiting. May precede diarrhoea by several hours.
- Diarrhoea. May occasionally be blood stained.
- Generalised colicky abdominal discomfort may follow the onset of the above. Often relieved by passing a motion. Usually no peritonism or guarding.
- Fever may occur in 30% of cases up to 38^{o}C.
- Anorexia, malaise and headache may occur in severe cases.

Investigations

Stool culture for pathogens if the patient is profoundly unwell or is part of an outbreak of gastro-enteritis. Have the result sent to your medical adviser and put your name and installation on the paperwork (see attached Public & Environmental Health appendix to this document).

Differential Diagnosis

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- Acute Appendicitis. With this, pain precedes diarrhoea and is not related to passage of a bowel motion. Right iliac fossa tenderness and guarding pronounced.
- Ulcerative Colitis.

Treatment

1. Fluids such as Dioralyte, Rehidrat, etc.

2. Anti-diarrhoeal agents e.g. Loperamide can be used unless contraindicated (pyrexia >38°C or bloody diarrhoea).

3. Antibiotics. These are not usually necessary for simple gastro-enteritis. Ciprofloxacin is indicated where there is pyrexia >38°C or bloody diarrhoea. Such cases should be discussed with the doctor before commencing treatment.

Complications

Dehydration. Patients unable to take fluids will become dehydrated and will need to be medevaced.

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9.0 DERMATITIS

Skin irritation can result from infection or an external agent such as, for example, an oil-based mud.

Where infection is not present, then the employee should be treated by:

1. Removing the source of irritation.

2. If this is not possible, then the employee should try to prevent skin contact with the agent.

3. A cream or ointment may be applied to alleviate symptoms such as:

   (i) E45 (emollient) for a dry skin.

   (ii) 1% Hydrocortisone (mild steroid). Steroids can make certain skin problems worse such as an infection (bacterial, fungal) and scabies. Steroids, particularly the stronger ones can thin the skin, cause skin pigmentation and acne. The face is particularly sensitive.

   Strong steroids, e.g. Betamethasone ointment should only be used on the instructions of a Doctor or a patient's G.P.

4. Skin conditions thought likely to be caused by work should be reviewed by the company medical adviser. If this doctor considers the condition to be an occupational dermatitis, then the company must report this to the HSE under RIDDOR.

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10.0 ANALGESIA

Many analgesics are prescription only medicines (POM) or controlled drugs (CD). This guidance note defines the areas where the Medic may use these analgesics without verbal referral to a Doctor.

The use of CD's is strictly regulated. Rarely will it be necessary to use a CD without prior verbal referral to a doctor due to constraint of time or circumstances. You should record the reasons for not referring to a doctor in your notes. You must inform the Doctor as soon as possible afterwards.

Before issuing any drug, refer to the Standing Order on Prescribing Medications. This Guidance note starts with a description of the various over the counter (OTC), POM and CD analgesics. It will then list the areas where analgesics can be used without verbal referral to a Doctor, provided the Medic is confident of the diagnosis and is happy to commence treatment.

There are three groups of analgesic medications available offshore:

(1) Paracetamol
(2) Non steroidal anti-inflammatory drugs (NSAID)
(3) Opiates

1. Paracetamol

Paracetamol is a particularly safe analgesic and anti-pyretic medication (except in overdose). It is useful for simple headaches, aches, minor trauma and colds or sore throats.

2. NSAIDs

For example Aspirin, Ibuprofen, Diclofenac, Indomethacin, Naproxen. These have analgesic and anti-inflammatory properties. They are useful for the treatment of pain associated with inflammation such as arthritis, tenosynovitis, gout, bursitis, and for back and soft tissue pain. Some also provide relief from the pain of dysmenorrhoea. There can be considerable variation in the response to NSAIDs and so it is worthwhile trying another NSAID if one does not work. Most should start to work within a few days, but may not reach full efficacy for about a week.

NSAIDs should be taken regularly in order to achieve constant tissue levels – not just when there's pain.

NSAIDs vary in the incidence and type of side effects. Possible side effects are peptic ulcers, dyspepsia, nausea, diarrhoea, asthma, dizziness, tinnitus, fluid retention. These side effects can occur following oral, topical or IM administration.

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Peptic Ulceration or Dyspepsia
This is a relatively common side effect, especially if the person has a history of peptic ulcer or excessive dyspepsia. This side effect can occur irrespective of the route of administration. You must not give these drugs to patients in the high risk groups mentioned above. Do not forget that aspirin is found in many cold remedies. You must tell your patient to stop taking these drugs and return to see you if they develop dyspepsia. You should note that you have done so. All NSAIDs should be taken with or immediately after food or milk.

Asthma
Asthma is a potentially serious side effect. NSAIDs (especially aspirin) should not be used in a person who has had an asthmatic reaction or whose asthma has deteriorated when given NSAIDs in the past. A NSAID should only be given to an asthmatic patient after a consultation with a Doctor.

Main Indications and Side Effects of Common NSAIDs:

Aspirin

This is used for headaches, colds, sore throats, minor musculoskeletal pains, dysmenorrhoea, pyrexia and as an anti-platelet aggregation drug following a heart attack or vascular surgery. Its notable side effects include asthma attacks, gout and skin rashes. It is available in combination with Opiates, e.g. Co-codaprin (Codeine). These combinations are used for moderate pain relief. As aspirin is present in many proprietary cold preparations and pain killers, be careful not to inadvertently give aspirin twice, and thus overdose your patient.

Dose 300-900mg four times per day orally.

Ibuprofen

This is a popular analgesic for musculoskeletal pains with fewer side effects than other NSAIDs. It has also less anti-inflammatory activity, and so is unsuitable for conditions with a lot of inflammation, e.g. gout.

Dose 400mg, 3 to 4 times per day orally.

Diclofenac (Voltarol)

Diclofenac is also available as an IM injection. This injection can be used for severe musculoskeletal pain (e.g. back pain) or renal/ureteric colic. This avoids the risks and controls associated with opiates. However, you must seek medical

advice before you use a parenteral form of Diclofenac. Never give the injection IV. Patients with dyspepsia, etc should not be given this drug in any form. Do not exceed 150 mg/24 hours.

Dose Diclofenac 75mg IM (repeated after 30 minutes if necessary for renal colic).
Diclofenac tablets 25 mg 3x /day after food (double in cases of gout or severe pain i.e. 50 mg three times per day).

3. Opiates

For example Morphine, Diamorphine, Pethidine, Dihydrocodeine. These drugs are used to relieve moderate to severe pain, particularly visceral (heart, gut, etc) and major trauma. They have no anti-inflammatory activity, and are thus inappropriate for inflammatory conditions - except where NSAIDs are not tolerated. Opiates are also used in acute left heart failure (Morphine, Diamorphine), in cough suppression (Morphine, Codeine, Pholcodeine, Dextromethorphan) and diarrhoea (Codeine).

All Opiates cause nausea, vomiting, constipation, drowsiness and in overdose respiratory depression and hypotension. Respiratory depression is unlikely to occur at normal doses given slowly IV if the patient had previously been well, had not received any sedatives and has not been drinking alcohol. An Opiate should not be given to a patient with a breathing disorder. Naloxone will immediately reverse the effects of the Opiates and should be stored with them. A smaller dose of Opiate will be required in a hypotensive patient. When medevacing a patient who has received a strong Opiate, always have them accompanied with at least a first aider with a sick bowl and resuscitation equipment. Addiction is a complication of long term administration and is not a consideration in acute pain relief. However, it is a consideration when checking your stock levels and inspecting the controlled drugs book. Nothing in this guidance note allows the Medic to administer strong Opiate analgesia without prior reference to a Doctor, except in the most extreme emergencies. Opiates should always be given by slow intravenous injection.

Main Indications and Side Effects of Common Opiates:

Morphine

This is normally used for any severe pain, e.g. heart attack. It frequently causes nausea and vomiting. An anti-emetic such as Metoclopramide 10 mg IV over two minutes is indicated.

Give **Morphine** in initial doses of 3-5 mg IV slowly over 1 min and repeat every few minutes until the patient is pain free (up to **15mg)**

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Diamorphine

This is another excellent analgesic often used in major trauma and acute left heart failure. It is less likely to cause nausea than Morphine. If it still causes nausea and vomiting, an anti-emetic such as Metoclopramide 10 mg IV over two minutes is indicated.

Give **Diamorphine**,in initial doses of 1-2 mg IV slowly over 1 min and repeat every few minutes until the patient is pain free (up to **5mg)**.

Pethidine

Less potent than Morphine or Diamorphine and thus unsuitable for any severe pain aside from renal/ureteric colic. Diclofenac (see NSAIDs) can also be used for this colic except where the patient is sensitive to NSAIDs.

Dose 25-50 mg slowly IV (preferred route). Titrate the dose according to the effect.

Dihydrocodeine

This is an Opiate of moderate potency and the oral form may be used without reference to a Doctor with the following provisos. The injection form is a controlled drug and must not be used without prior reference to a Doctor. Both oral and injection forms can be abused and should be carefully monitored. It can be combined with Paracetamol (Co-Dydramol). Best used for moderate pain. The patient should not return to work after taking this drug, as he may be significantly sedated. It is likely that workers requiring this strength of analgesia will need to be medevaced.

Dose 30 – 60 mg orally every 4 hours.

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Occasions when the Medic may use analgesic medications without reference to a Doctor

a) Ankle Sprain

Minor sprains can be treated with rest, ice, compression, elevation (RICE). The patient should initially rest with his/her foot up and ice or a bag of frozen vegetables applied to the ankle. Once the worker is ready to start walking, apply an elasticated compression bandage. Early mobilisation speeds up the rate of recovery. Analgesics such as Ibuprofen, Co-codamol (500/8), or topical NSAIDs may be given to ease the pain. More serious sprains where there is considerable tenderness over the lateral malleolus, bruising and swelling or an inability to walk should result in the employee being medevaced.

b) Pulled Muscles

Minor aches and pains which do not interfere significantly with function, can be treated with local heat, topical NSAIDs (e.g. Traxam gel) and massage. Oral NSAIDs may be necessary.

c) Low Back Pain

Disabling back pain should result in evacuation. These patients may require muscle relaxants such as Diazepam 5mg and analgesia Diclofenac 75 mg IM before travelling. This should be discussed with the emergency doctor. 24 hours off duty prior to the helicopter flight may reduce the patient's discomfort during the flight.

Less disabling back pain should be treated by continued work (avoiding heavy work), gentle back exercises, NSAIDs and topical treatment (for example, Mentholatum rub or Ibugel)**.**

Important Note
Any person complaining of bilateral leg pain, sacral numbness or difficulty with micturition/defaecation may need an emergency operation (cauda equina decompression). You must enquire about these symptoms.

d) Neck Pain

If not too disabling and not due to trauma, apply a soft collar and prescribe NSAIDs. Otherwise medevac is required. Accidents resulting in neck pain must always be referred to a Doctor and a stiff collar applied.

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e) Rib Injuries

If not too disabling and you can detect no pneumothorax use NSAI's or weaker Opiates such as Co-codamol or Co-Drydramol. If there is a lot of pain subcutaneous emphysema or the patient is tachypnoeic (greater or equal to 20 breathes per minute) refer to a Doctor - consider pneumothorax.

f) Headache

For tension or simple headache (often frontal) use Paracetamol or Aspirin or Co-codamol or Co-Drydramol or similar. Refer any patient whose headache is worse in the morning or is particularly severe when stooping, sneezing or coughing. Headaches associated with unilateral pain and a visual aura beforehand, may be migraines. These can be treated with Paracetamol and Metoclopramide (i.e. Paramax) or Migraleve. Occasionally Sumatriptan may be required. Phone the topside service about this first.
Consider Meningitis if the patient has a severe headache, photophobia, drowsiness, fever, vomiting, neck stiffness (meningism) and sometimes a rash. Early parenteral Penicillin will be necessary and urgent medical evacuation arranged (See Meningitis Protocol, pg. 85).

g) Sore Throats and Sinus Discomfort

These should be treated with one of the following: Paracetamol, Aspirin, Co-codamol, Co-Drydramol orally or as gargles.

h) Dental Pain

Dental Caries or abscesses should be treated with analgesics such as Aspirin, Paracetamol, Co-codaprin and Co-codamol. Oil of Cloves placed on a carious tooth may also help. Unremitting severe toothache must result in the employee being dentevaced.

i) Tendonitis

This commonly occurs around the wrist of computer operators, etc. A tender often swollen area appears on the back of the wrist. It is treated by rest and NSAIDs e.g. Ibuprofen. If this is likely to be due to work you should discuss the case with your company medical adviser. You may also wish to review the work station. The occupational causes of any work-related problem must be fully explored and discussed with the company doctor.

j) Bursitis

Repeated pressure over the knee or elbow may result in sterile inflammation of the bursae of these areas. Rarely it may become secondarily infected. Treatment of the uncomplicated condition is rest and NSAIDs e.g. Ibuprofen.

11.0 INSOMNIA

A common complaint offshore is inability to sleep due to changing shift patterns, noise, anxiety, etc. In treating this you should ensure that there are no underlying problems such as depression which often causes early morning wakening rather than inability to get off to sleep. Depression needs to be discussed with a Doctor. Noise nuisance can be reduced by wearing earplugs although ideally the source should be eliminated.

An employee complaining of insomnia due to a changing shift pattern should be advised to commence a routine before going to bed e.g. reading a book or paper etc. Only for the most troublesome insomniacs should a sedative be prescribed. This should be short acting (eg. Zolpidem 10mg) and given once or perhaps twice per trip. Longer use can result in difficulty in escaping during an emergency, impaired judgement, 'hangover' the next day and eventually tolerance.

Nitrazepam (Mogadon) and Diazepam should not be used for night sedation.

If you wish to give anyone treatment for more than two nights, you should call the topside service.

12.0 REMOVAL OF FOREIGN BODIES FROM EYES

The following guidelines are to be adhered to when dealing with any patient presenting with a suspected foreign body in the eye. A patient may not recall a foreign body entering the eye, so it is essential to suspect this where a patient has an uncomfortable red eye. You do not need to refer to a doctor unless the foreign body is embedded in the eye's surface.

1. Test and record the visual acuity in both eyes before carrying out any treatment.

2. Always examine the eye fully and carefully externally, as well as with an ophthalmoscope and document findings accurately.

3. Instil Fluorescein to detect any abrasions. Local anaesthetic (oxybuprocaine) should also be applied if necessary.

4. Small loose conjunctival foreign bodies can be removed by washout with water or wiping with a damp cotton wool bud. Corneal foreign bodies can be more difficult to remove especially if they are embedded. A needle tip can be used, although great care should be taken to prevent corneal damage.

5. If in doubt about ability to remove a foreign body, always refer for specialist treatment.

6. Always check for foreign bodies beneath the eyelids. To inspect the upper lid it should be everted by using the upper margin of the tarsal plate as a hinge. With the patient looking down the lashes and free margin are grasped between the index finger above and thumb below. Using an orange stick or cotton wool bud in your free hand apply some gentle pressure downwards on the outer surface of the lid, then with a twisting motion the tarsal plate can be made to turn back to front. Remove any foreign body with a damp cotton wool bud.

7. Following removal of a foreign body from the surface of the eye, retest the visual acuity and again record it.

8. Treat the residual epithelial defect. Apply an antibiotic ointment to the eye for a few days and an eye pad may afford some pain relief.

9. Always instruct the patient to return if discomfort persists or there is any other problem at all.

10. Always remember the possibility that a foreign body may have penetrated the eye. Any patient with a history or findings suggestive of a penetrating foreign body should be referred for specialist assessment.

13.0 PROTECTION AGAINST BLOOD BORNE PATHOGENS

This provides guidance for Medics and First Aiders on measures to reduce the occupational transmission of Human Immunodeficiency Virus (HIV), Hepatitis B virus (HBV) and other blood borne pathogens from patient to health care worker (HCW) and vice versa. This guidance should form part of the installation's COSHH policy.

Blood is the prime means of transmitting these viruses. However cerebrospinal fluid, peritoneal/pericardial/pleural fluid, synovial fluid, semen, vaginal secretions, any blood stained body fluid, saliva associated dentistry and cadavers should all be treated with the same caution. However, the UK prevalence of HIV and HBV is low (about 0.05% and 0.1% respectively) - the offshore workforce is probably an even lower risk population. The risk of transmission due to inoculation from a known infected patient is less than 0.5% for HIV but up to 20% for HBV carriers.

The primary measures for prevention of occupational transmission of HIV and blood borne hepatitis in the health care setting are:

i) Protection of existing wounds, skin lesions, conjunctivae, and mucosal surfaces. Prevention of puncture wounds, cuts and abrasions in the presence of body fluids.

ii) Control of work surface, equipment and clothing contamination with blood and body fluids by containment, washing and disinfection.

iii) Avoidance of sharps usage where possible, but if unavoidable, then exercise the utmost care in handling and disposal.

iv) Safe disposal of contaminated sharps and other material.

1. All skin wounds should be covered by a water proof plaster where possible. If it is likely that you will get body fluids on your hands, then you should wear examination or surgical gloves. If you are washing contaminated instruments or surfaces, wear household gloves. If blood spattering is likely then you should wear high protection, a surgical mask, a plastic disposable apron and protective footwear. The apron should ideally reach down past your boots, to stop blood entering the top of the boot. It is unlikely that you will have to take all these precautions unless you are dealing with a severely traumatised patient.

   Although neither HIV nor HBV have ever been transmitted by mouth to mouth resuscitation, it is at least aesthetically more pleasant to use a facemask for resuscitation. Both the Medic and first aiders must train in the use of these tasks. Blood stained saliva does carry a small risk of BBP transmission.

2. All items to be contaminated must have loose debris removed by hand first. Household gloves must be worn.

   (a) Work surfaces can be covered with a disposable, impermeable covering (e.g. surgical towel). This will prevent the worst contamination. However,

even if the work surface is not visibly contaminated, it should be cleaned with a solution of 10,000 part per million available chlorine as Hypochlorite (i.e. 1 in 10 dilution of household bleach). Granular Sodium Dichloroisocyanurate can also be used to disinfect blood spillages. Any cloths used in this process must be either washed as outlined below or incinerated. All surfaces must be cleaned after a single use.

(b) Equipment. Ideally these should be disposable. If they are to be reused, they should be autoclaved - if possible onshore. Not all equipment will tolerate this however, and the manufacturers' instructions should be consulted. Autoclaving involves a wet heat. Sterilisation of instruments results after three minutes at 134^{o}C or 10 minutes at 126^{o}C or 15 minutes at 121^{o}C or 30 minutes at 115^{o}C. Hot air sterilisers are less reliable and require longer, e.g. 30 minutes at 180^{o}C and 1 hour at 160^{o}C. Chemical sterilisation is even less reliable, and some agents cause corrosion and respiratory irritation. Glutaraldehyde, alcohol and bleach (Hypochlorite) are examples. Only bleach is used routinely for work surfaces in the offshore environment. Remember that your equipment is only sterile for 3 hours after autoclaving, provided you place sterile towels over it. Autoclaves should be serviced and inspected according to the manufacturer's instructions, and at least annually. All equipment should be cleaned after a single use.

(c) Clothing, towels, etc, should be placed in a bag and washed in a well maintained washing machine. This should rinse initially in the cold rinse cycle and then in the hot wash cycle (at approximately 80^{o}C). Avoid overloading. Wear household gloves. If you decide to throw out contaminated clothing, then it should be incinerated.

3. The commonest cause of occupational exposure to infected blood is through a needle stick injury. Medics should therefore where possible avoid using sharps. For instance steristrip instead of suture, use buccal preparations instead of IM injections, medevac patients with large lacerations to Accident and Emergency. If you use a hypodermic needle, do not re-sheath it - or if you have to, hold the cap with forceps. Always dispose of sharps immediately and do not leave them lying around. It is your responsibility to place the sharps in the sharps bin. This includes broken glass, scalpels and needles/syringes.

4. Sharps bins should not be filled more than three-quarters full. These should be located near where the sharps are produced. There should be plenty of spare bins. Contaminated material e.g. swabs, towels, bandages should be placed in yellow plastic bags marked 'Bio Hazard'. The Medic should ensure that this waste is disposed of safely. This will be by arrangement with the local environment service (in Aberdeen 480281). There is usually a minimum charge for this.

It is incumbent on the Medic to make sure that his/her First Aiders are fully aware of the risks and precautions to be taken. This will avoid complacency or hysteria. Make sure that first aid kits are appropriately stocked. This might mean including facemasks (e.g. Laerdal), surgical masks, plastic aprons and examination gloves.

If anyone should get blood in their eyes, mouth or over a cut/abrasion, then wash it off. If you should get a needle stick injury after using the needle on a patient, squeeze the skin to make it bleed. For all of these incidences, record them in an accident book and phone the Topside Medical Service. You may be required to interview the source of the blood to ascertain whether he/she is a high risk individual and to take blood for viral analysis. Both the HCW and the patient may need to be medevaced. Therefore to avoid all this inconvenience and worry, apply the above precautions every time for everybody.

Refer to Section VII, Company Vaccination Against Blood Borne Viruses Protocol.

14.0 MULTIPLE CASUALTIES

1. GENERAL

The Offshore Installations (Emergency Procedures) Regulations 1976, (SI 1541) states that all installations must have an emergency procedures manual which states what must be done in the case of death, major accident or serious injury. Included in the manual will be the Company's stated procedure for dealing with multiple casualties and the procedure to be taken in the event of a medevac. The Medic should ensure that he/she is familiar with this plan (Major Disaster Plan) and that a copy is maintained in the Sick Bay.

2. A MASS CASUALTY/DISASTER SITUATION:

This is an unexpected catastrophe, and in the offshore situation, the number of patients and the severity of the injuries, can exceed the normal capacity of the facility and of its staff. To cope with this situation, casualties need to be rapidly assessed and prioritised.

3. TRIAGE

From French *trier*, to sift or sort, this is the term given to a continuing process of sorting patients in order to prioritise their care. It begins at the scene of an incident and continues not only until the casualties leave the installation, but during transportation and on arriving in hospital. The priority may change at any time during the assessment, resuscitation, treatment, and transportation of the casualty to hospital.

Resources must be used so that the maximum benefit can be provided to the maximum number of casualties. In a mass casualty situation, those casualties who have the greatest chance of survival with the least expenditure of time and equipment are generally managed first. To emphasise this point, those who are unlikely to survive with immediate, intensive, time consuming treatment and who would reasonably be expected to die despite the best available treatment at the time, are given the lowest priority.

Triage should be performed by the most experienced medical person present and requires the injured patient to be evaluated rapidly and thoroughly.

TRIAGE CLASSIFICATION:

Triage classification systems have been designed to assign to every casualty a trauma score which equates to his/her survivability. There are many scoring systems but the one outlined below is the simplest and most widely used.

Priority 1 – Immediate (Colour code – Red, will die in a few minutes if no treatment, e.g. obstructed airway, tension pneumothorax, etc)

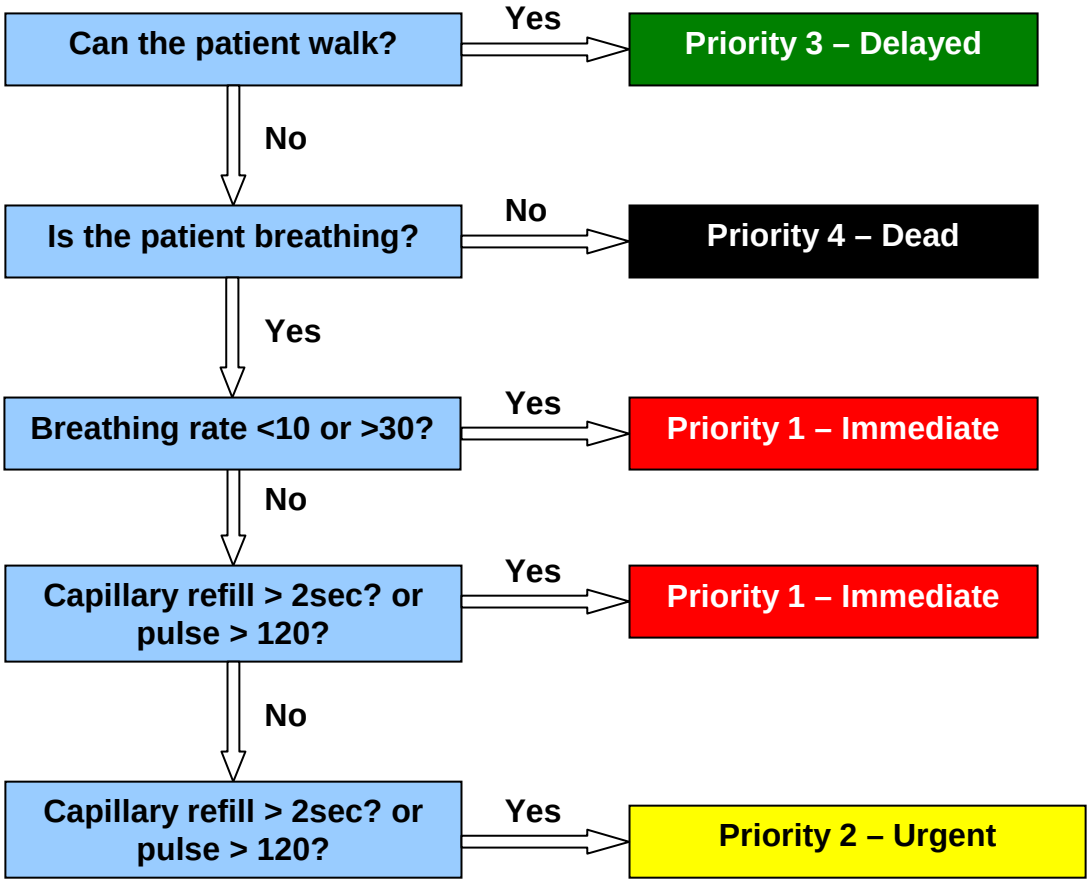
Priority 2 – Urgent (Colour code – Yellow, may die in 1-2 h if no treatment, e.g. hypovolaemia)

Priority 3 – Delayed (Colour code – Green, can wait, e.g. minor fracture)

Priority 4 – Dead (Colour code – White or black)

Some triage systems consider one more category – Expectant (Colour code – Blue, to treat them may delay helping the salvageable, who then die unnecessarily). Not all triage labels have this colour, use Green.

Triage is performed according to the triage sieve:



Important note: Triage is dynamic process. It starts with a brief-look assessment, but later may involve a detailed examination. Priorities will change while awaiting, and after treatment.

DISASTER PLANNING:

The following is an outline of what is required to deal with a potential disaster.

1) **PLANNING**

(a) Consider various types of incidents

(b) Identify and train First Aid Teams to deal with multiple casualty scenarios.

(c) Organise equipment into specific packs eg:
- IV packs
- Burn packs
- Fracture packs
- Diagnostic packs
- Wound packs

(d) Ensure medical facilities and equipment are adequate both for solitary and multiple casualty situations. (NB Casualty can arise from your own, or from an adjacent installation).

(e) Designate lines of communication to OIM, Topside Doctor and shore base.

(f) Regularly carry out simulated exercises.

TRIAGE - PRIORITISE ALL CASUALTIES:

Priority 1

Priority 2

Priority 3

Priority 4

AT INCIDENT SITE: Triage sieve

AT INCIDENT SITE AND TREATMENT AREAS:

Evaluation and care is divided into four phases:-

1. **Primary Survey:** - an assessment of A,B,C,D,E

(a) Airway and cervical spine control
(b) Breathing
(c) Circulation and haemorrhage control
(d) Disability – brief neurological examination
(e) Exposure – undress and assess patient if environment permits

2. **Resuscitation Phase: -**

(a) Oxygenate and ventilate
(b) Shock management – IV lines
(c) Manage life threatening problems

(d) Monitor – e.g. colour, respiratory rate, BP

3. **Secondary Survey:**

This is a detailed head to toe patient evaluation

4. **Definitive Care:**

This involves treating and managing those injuries that have been identified prior to evacuating the patient to hospital.

5. **Evacuation:**

Casualties should be transferred to hospital as soon as possible. However, it is of paramount important that patients are stabilised prior to transportation. If there is any doubt, discussion with the Topside Doctor who is supervising or who will be receiving the casualty is mandatory.

TREATMENT OF CASUALTIES

1. **At Incident Scene**: first aid or more intensive treatment may have to be given to the Casualty.

2. **In Sick Bay:** generally speaking a maximum of only 2 or 3 casualties can be treated in the Sick Bay at any one time.

3. **Casualty Clearing/Treatment Area:** For more than 3 casualties a larger area is required. Pre-planning should ensure that an area, which is large enough to cope with 10 or 12 casualties, has been designated for this purpose. On most installations the most suitable area is likely to be the Cinema/TV or Mess Room. One room should be retained to provide an area for relaxation, and as a meeting, discussion and counselling area, for both the walking wounded and their carers. The casualty clearing area required locked cupboards, containing medical equipment such as IV fluids, splints dressings etc. Ceiling hooks should be fitted for the suspension of IV fluids, and an adequate number of electrical points fitted along with telephone communication to the Sick Bay and Radio Room. It is also important to have personnel pre-designated to remove equipment such as chairs, tables, etc to rapidly convert the room into a casualty treating area.

4. **Mortuary:** In a serious incident, provision must be made for fatalities. Any reasonably sized room near the casualty clearing area would serve this purpose.

5. **Personnel:** In a multiple casualty scenario, the following personnel require to be identified:

(a) Medic – initially he will supervise and organise all on site matters, but will devolve that responsibility to a doctor when he/she arrives on the installation.

(b) First Aiders - Note: Key and senior personnel may not be available to provide assistance during an emergency.

(c) Stretcher Bearer Teams

(d) Communications Director, e.g. Camp Boss or OIM if available.

6. **Equipment:**

(a) An inventory of all available and necessary equipment must be made and must be regularly checked.

(b) Emergency packs as stated above.
First Aid packs – a separate one is required for each First Aider.

(c) Adequate secondary supplies held in the Casualty Clearing Area in order to deal with multiply-injured multiple casualties.

7. **Communications:**

(a) Ensure adequate communication system between Radio Room, Sick Bay and Casualty Clearing Station, also a direct hands-free radio between Sick Bay and Shore.

(b) Ensure availability of messengers and scribes for documentation and maintaining logs.

(c) Ensure emergency teams are aware of evacuation procedures.

(d) Ensure HLO is kept aware of procedures and anticipated number and disposal of casualties.

SECTION III GUIDANCE

CHECK LIST

1. Attend site and evaluate casualties – triage.

2. Initial casualty assessment: -

   (a) Rapid Primary Survey

   (b) Resuscitation

   (c) Detailed Secondary Survey

   (d) Re-evaluation

   (e) Initiate Definitive Care

3. Evaluation and treatment should follow A, B, C's principles.

4. Allocate evacuation priorities.

5. Inform OIM of situation and of number and severity of casualties soonest; also evacuation needs, for requirement of a doctor on site, or for further equipment and personnel.

6. Ensure the Major Disaster Plan is implemented.

Triage Area Selection

The following points should be considered:

- Areas need to be designated for priorities 1,2,3 and 4 casualties
- The area should be large enough to process and handle more than 6 casualties. Priorities 1 and 2 can be treated in the same room.
- The triage area needs good access to the deck, helideck and hospital
- The triage area should have lockable cupboards for equipment storage
- The triage area needs to have a direct telephone line for communication with the duty doctor. A telephone jack is sufficient as the hands free phone from the hospital can be transferred.

Personnel Involved

The OIM, offshore medic and first aiders/stretcher party are all involved in triage scenarios. It is important that the aiders chosen are available in an emergency situation and are not involved in other duties, e.g. firefighting, well control. A scribe should be appointed to aid the medic with all record keeping and liaison with the on-call doctor. The scribe should have first aid training. Regular drills should be practised. All participants should have written instructions on a laminated card giving them their duties. The following is an example of such duties but it is not inclusive and will depend on the individual and the installation he or she is on.

Duties of Medic

- Inform OIM to activate triage plan.
- Instruct first aiders to set up triage area. This may require removing furniture and bringing some items of medical equipment from the hospital
- Instruct scribe/assistant to check phone system in triage area is set up. This may require removing hands free phone from the hospital.
- Assess casualties and liaise with TOPSIDE MEDICAL ON CALL.
- Wear identification armbands.

Duties of OIM – To ensure the following is completed, may delegate to Radio Officer

- Contact TOPSIDE MEDICAL ON CALL and request Doctor(s) proceed to installation.
- Organise first aiders to triage area and settling up of triage area.
- Contact Company Manager and shorebased emergency response team.

Duties of First Aiders/Stretcher Party

- Assemble in triage area and set it up.
- Organise equipment as instructed
- Follow instructions of medic.
- Wear identification armbands.

SECTION III GUIDANCE

Duties of Scribe/Assistant

- Check phone system in triage area is working.
- Open triage card box (e.g. Cambridge cruciform cards).
- Record casualty details as per medic's instructions on triage card.
- Act as liaison with TOPSIDE MEDICAL ON CALL
- Keep casualty log.

SECTION IV MEDICINES FORMULARY

May 2009

This formulary meets UKOOA's requirements for offshore installations.
It includes the MCA's requirements for Lifeboats.

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SECTION IV MEDICINES FORMULARY Page 1

GASTRO-INTESTINAL SYSTEM

PREPARATION	STOCK	MCA	HSE	POM
ANUSOL HC CREAM 30g	10	*as req		
ANUSOL SUPPOSITORIES	24	* as req		
Co-MAGALDROX, 500ml	3	* NQ		
DIORALYTE SACHETS (packs of 6)	5 packs	3 packs		
DOMPERIDONE TABLETS 10mg	30			POM
GAVISCON ADVANCE TABLETS	120 alhydr	* as req	250	
GLYCEROL (glycerin) SUPPOSITORIES	24	12		
LOPERAMIDE CAPSULES 2mg	60	*		
MEBENDAZOLE (Vermox) 100mg tabs	6	*		
MEBEVRINE 135mg	100	56 Hyoscine		POM
PROCHLORPERAZINE TABLETS 3mg BUCCAL (Buccastem)	50*			POM
OMEPRAZOLE CAPS 10 mg	56	* Cimetidine		POM
SENNA TABLETS 7.5mg	50			

PREPARATION	STOCK	MCA	HSE	
AMIODARONE 30mg/ml injection 10ml amp (Min-i-jet)	 2			POM
ADRENALINE/EPINEPHRINE 1:1000 1mg/ml 1.0ml Amp (Min-i-Jet) 1:10,000 100 micrograms/ml 10ml Amp (Min-i-Jet)	 10 20	 * 5		POM
ASPIRIN 300 mg (dispersible)	100			
ATENOLOL 50mg tablets	28	*		POM
ATROPINE SULPHATE 1mg/10ml 10ml Amp	 6			POM
FUROSEMIDE 10mg/ml 5ml Amp 40 mg tablets	 5 28	 2 *	 6	POM
NITROLINGUAL SPRAY 400 microgram dose/200 dose inhaler	3	* TD Patch		POM
The following medications can be purchased where one or both medics have been trained to use these items				
TENECTEPLASE 10,000 unit, 50mg Vial	1			POM
DALTEPARIN 10,000 unit 1ml Amp	1			POM

SECTION IV MEDICINES FORMULARY Page 3

RESPIRATORY SYSTEM

PREPARATION	STOCK	MCA	HSE	POM
BECLOMETASONE 200 micrograms dose/200 dose inhaler.	2	1		POM
CHLORPHENIRAMINE/ CHLORPHENAMINE INJECTION 10mg/ml 1mg Amp (Piriton)	5			POM
IPRATROPIUM NEBULES 500 micrograms/2ml	20			POM
LINCTUS SIMPLE 100ml	10	As req		
SALBUTAMOL inhaler 100 microgram dose/200 dose inhaler	3	1		POM
SALBUTAMOL NEBULES 1mg/ml, 2.5ml, 2.5 mg	20			POM

PREPARATION	STOCK	MCA	HSE	POM
BENZATROPINE INJECTION 1mg/ml 2ml Amp (Cogentin)	3			POM
DIAZEPAM INJECTION (Diazemuls) 5mg/ml 2ml Amp	10	5	6	POM
DIAZEPAM, rectal tubes, 4mg/ml, 2.5ml (10mg) tube.	5	*		POM
DIAZEPAM 5mg tabs	50	28	50	POM
HALOPERIDOL tablets 1.5mg	40	28 chlorpromazine		POM
HALOPERIDOL INJECTION 5mg/ml 1ml Amp	5	chlorpromazine	25 chlor-promazine	POM
HYOSCINE tablets, 0.3mg	180	60		
METOCLOPRAMIDE injection, 5mg/ml, 2ml amp	10	promethazine	50 promethazine	POM
PROCHLORPERAZINE INJECTION 12.5mg/ml 1ml Amp	10			POM
ZOLPIDEM 5mg (Stilnoct)	56		20 temazepam	POM

SECTION IV MEDICINES FORMULARY Page 5

ANTIBACTERIAL

PREPARATION	STOCK	MCA	HSE	POM
AMOXICILLIN 500 mg caps	224		100	POM
CEFUROXIME INJECTION 750 mg vials	20	20		POM
CIPROFLOXACIN 500mg tabs	60	20		POM
CLARITHROMYCIN 250 mg tabs	200	28 erythromycin	50 Erythromycin	POM
CO-AMOXICLAV 500/125 mg tabs	63			POM
DOXYCYCLINE 100mg caps	200	8 tetracycline	50	POM
FLUCLOXACILLIN 500mg tabs	100			POM
METRONIDAZOLE TABLETS 200mg	100		42	POM
METRONIDAZOLE SUPPOSITORY 1g	10	10		POM
PENICILLIN G 1.2g vial (Crystapen)	10	10	10	POM
PENICILLIN V 250mg tabs	200		100	POM
TRIMETHOPRIM 200mg	100	14	100	POM

N.B. Travel to malarious areas will require anti-malarial chemoprophylaxis and malaria treatment packs. The nature of the medication depends on the areas to be visited. Vaccinations should also be considered.

ENDOCRINE

PREPARATION	STOCK	MCA	HSE	POM
DIABETES DEXTROSE 20% in 25ml, GLUCAGON injection, 1mg amp	 5 2			 POM
CORTICOSTEROIDS HYDROCORTISONE SODIUM PHOSPHATE 100mg/ml 1ml Amp PREDNISOLONE 5mg tabs	 10 60	 3 	 10 28	 POM POM

SECTION IV MEDICINES FORMULARY Page 7

ANALGESICS

PREPARATION	STOCK	MCA	HSE	POM
CO-CODAMOL TABLETS tabs (500/8)	200	28 codeine		POM
DICLOFENAC INJECTION 25mg/ml 3ml Amp	10	sup		POM
DICLOFENAC tabs, 25mg	168			POM
DIHYDROCODEINE 30mg	60	50		POM
IBUPROFEN TABLETS 400mg	420		100	
MIGRALEVE, 48 tab pack	5			POM
PARACETAMOL 500mg	400	100	500	
SUMATRIPTAN nasal spray 2 unit vial	2			POM

SECTION IV MEDICINES FORMULARY Page 8

CONTROLLED DRUGS

PREPARATION	STOCK	MCA	HSE	POM
DIAMORPHINE 10mg Amp	15	10 morphine	6 morphine	POM
PETHIDINE HYDROCHLORIDE INJECTION 50mg/ml 2ml Amp	10	10		POM

SECTION IV MEDICINES FORMULARY Page 9

EYE

PREPARATION	STOCK	MCA	HSE	POM
BETAMETHASONE 0.1% drops, 10ml	5	dexamethasone		POM
CHLORAMPHENICOL 1% eye ointment, 4 g	10	4	1	POM
FLUORESCEIN 2% minims 0.5ml	20	*	50	
FUSIDIC ACID (Fucithalmic) 1% eye drops 5g	20	neomycin		POM
OXYBUPROCAINE (Benoxinate) 0.4mg minims 0.5ml	60	amethocaine	50	POM
PILOCARPINE 2% minims 0.5 ml	20	*		POM
SODIUM CHLORIDE 0.9% minims 0.5ml	60		100	

SECTION IV MEDICINES FORMULARY Page 10

EAR, NOSE & THROAT

PREPARATION	STOCK	MCA	HSE	POM
CAVIT, temporary dental filling	3			
CHLORHEXIDINE mouthwash solution 300ml (e.g. Corsodyl)	3	1	250 tabs	
EPHEDRINE nasal drops 10ml bottle	20	1		
GENTISONE HC 10 ml	5	1 polymixin/neomycin		POM
HYDROCORTISONE (Corlan) pellets 2.5mg	10			
KARVOL (levomenthol 35.55mg) cap	40		100	
LORATIDINE 10mg	60	30 Cetirizine		
NASEPTIN cream, 15g tube	3			POM
OIL OF CLOVES 10ml	10	1		
OLIVE OIL EAR DROPS 10ml	10			
PSEUDOEPHEDRINE TABLETS (Sudafed) 60 mg	100			
STREPSILS, pack	10			

SECTION IV MEDICINES FORMULARY Page 11

SKIN

PREPARATION	STOCK	MCA	HSE	POM
ACICLOVIR 5% cream, 2g	10			POM
MENTHOLATUM rub (deep heat), 40g tubes	5			
AQUEOUS CREAM 100g	3		10	
BETAMETASONE ointment 30g	5			POM
CALAMINE LOTION 200 ml	5		*	
CLOTRIMAZOLE cream, 1%, 20g	10	3 miconazole 3 benzoic acid		
HISTOACRYL 5 x 200mg unit	1			
HYDROCORTISONE 1% cream,15g	10	2		
LIGNOCAINE / LIDOCAINE 1% 2ml vial	10	5	3	POM
INSTILLAGEL (lidocaine 2% with chlorhexidine) 6ml syringe	4	1	2	
LYPSYL lip balm	36		25	
MAGNESIUM SULPHPHATE paste 25g	1		16	
MALATHION LOTION 0.5% 200ml (aqueous base)	2	2 permethrin		
MUPIROCIN (Bactroban) 2% ointment 15g	5	1		POM
POTASSIUM PERMANGANATE crystals 10g	1	*		
SILVER SULPHADIAZINE 1% ointment 50g	5	2		POM

STERIPOD (Sodium Chloride) 20ml	50	5		
UNISEPT(Chlorhexidine) 25ml	50	5	40	
ZINC OXIDE 15% ointment 25g	1	*		

SECTION IV MEDICINES FORMULARY Page 12

MISCELLANEOUS

PREPARATION	STOCK	MCA	HSE	POM
CLOTRIMAZOLE pessaries 500 mg	2	*		
FLUCONAZOLE, 150mg caps (Diflucan 1)	2			POM
SYNTOMETRINE injection 1ml Amp	2			POM
TETANUS IMMUNOGLOBULIN 250 units c/w needle	1	*		POM
DIPHTHERIA/TETANUS/POLIO VACCINE 0.5 ml Amp (*adult strength*)	5	*		POM

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I. V. INFUSION FLUID

PREPARATION	STOCK	MCA	HSE	POM
GLUCOSE 5% 500ml	5			
GELOFUSINE 500ml	20		30	
HARTMANN'S SOLUTION 500ml	20			
MANNITOL 20% 500ml	2			
SODIUM CHLORIDE 0.9% 500ml	20			
WATER FOR INJECTION 5ml Amp	20		100	

SECTION IV MEDICINES FORMULARY Page 14

ANTIDOTES

PREPARATION	STOCK	POM
CALCIUM GLUCONATE GEL* (for Hydrofluoric Acid burn) Supplied as a kit	1	POM
ETHANOL * spirit bottle (for Methanol poisoning)	1	
NALOXONE 0.4mg/ml 1ml Amp	10	POM

* If indicated following risk assessment

SECTION IV MEDICINES FORMULARY Page 15

LIFEBOAT STOCK

(per lifeboat)

PREPARATION	STOCK	POM
CO-CODAMOL (500/30)	60	POM
HYOSCINE 0.3mg tabs	60	
IBUPROFEN TABLETS 400mg	50	
LOPERAMIDE CAPSULES 2mg	30	
NITROLINGUAL SPRAY	1	POM
PARACETAMOL 500mg	50	
SILVER SULPHADIAZINE 50g	1	POM
UNISEPT (Chlorhexidine), 25ml	5	

CAPITA
HEALTH SOLUTIONS

SECTION V MEDICAL EQUIPMENT, FURNISHING AND SUNDRIES

May 2009

This includes equipment required by UKOOA, MCA and the HSE.

CAPITA
HEALTH SOLUTIONS

SECTION V MEDICAL EQUIPMENT, FURNISHING AND SUNDRIES

INDEX

SECTION V MEDICAL EQUIPMENT, FURNISHING AND SUNDRIES Page 1

1. Dressings and Bandages

	ITEM	DESCRIPTION	Quantity
DRESSING	GAUZE SWABS	7.5 cm square, sterile in packs of 5	50
	COTTON WOOL BALLS	Sterile 25g packs	20
	COTTON WOOL ROLL	100g	5
	PERFORATED FILM, LOW ADHERENCE, DRESSING	Sterile, individually wrapped eg Melonin, Release Size 5 x 5 cm Size 10 x 10 cm	 20 50
	PARAFFIN GAUZE DRESSING	Packs of 10 ,eg Jelonet Size 10 x 10 cm	 5
	SKIN CLOSURES	Sterile Size 6 mm x 75 mm. Size 3 mm x 75 mm	 48 48
	VAPOUR PERMEABLE WATERPROOF PLASTIC WOUND DRESSINGS	Sterile, individually wrapped eg Elastoplast, Airstrip Assorted sizes: 2.5 x 4.5 cm, 5 cm x 4.5 cm,7.5 cm x 4.5 cm, 7.5 x 2.2 cm. Normal plasters Detectable (blue)	 400 100
	OPSITE SPRAY DRESSING	120g	3
	SURGICAL ABSORBENT DRESSING	Individually wrapped eg Joint Services Dressing, First Aid, Field (Frank Sammeroff Ltd) or Ambulance Dressing Extra Large Large Medium Small	 5 20 20 20
	PLASTIC BURNS BAG	For hands or feet. 46x31 cm	5
	PLASTIC BURNS SHEET	Sterile. 90x120 cm	5

	WATER JEL DRESSING	4” x 4”	10
	WATER JEL DRESSING	4” x 16”	5
	WATER JEL DRESSING	Face mask	2
	SANITORY TOWELS	Packs	10

SECTION V MEDICAL EQUIPMENT, FURNISHING AND SUNDRIES Page 2

	ITEM	DESCRIPTION	Quantity
BANDAGES	CREPE BANDAGES	Individually wrapped Size 5 cm x 4.5 m Size 7.5 cm x 4.5 m Size 15 cm x 4.5 m	 6 12 12
	COTTON CONFORMING BANDAGES	Individually wrapped Size 7.5 cm x 3.5 m	 6
	ELASTIC ADHESIVE BANDAGE	Individually wrapped Size 5 cm x 4.5 m Size 7.5 cm x 4.5 m	 6 6
	SLEEK TAPE	7.5cm roll	1
	TRIANGULAR CALICO BANDAGE		25
	PERMEABLE, NON-WOVEN, SYNTHETIC, ADHESIVE TAPE (HYPO-ALLERGENIC)	2.5 cm roll	4
	ELASTICATED TUBULAR BANDAGE	10 m rolls Size D, E & F. Each size	1
	TUBULAR BANDAGE APPLICATOR	Size F	1
	TUBULAR GAUZE BANDAGE	20 m roll Size 01 and 12. Each size.	2
	TUBULAR GAUZE APPLICATOR	Plastic Size 01	1
	EYE PADS	Sterile, individually wrapped	50
	FINGER STALLS	Medium and large (each)	50
	SAFETY PINS	Medium	100
	SUSPENSORY BANDAGE	Small	2
	SUSPENSORY BANDAGE	Medium	5
	SUSPENSORY BANDAGE	Large	5
	COTTON BUDS	Box	2

2. Instruments, Appliances and Sundries

	ITEM	DESCRIPTION	Quantity
AIRWAY	OROPHARYNGEAL AIRWAYS	Disposable. Sizes 2, 3 & 4. Each size	4
	LARYNGEAL MASK AIRWAY	Disposable Size 4 and 5 Each size	4
	NASOPHARYNGEAL AIRWAYS	Disposable. Size 5, 6, 7, and 8. Each size	2
	LAERDAL POCKET MASK	C/w O2 nipple	4
SUCTION	SUCTION UNIT	Portable, mechanical e.g. Vivac	2
	SUCTION UNIT	Portable, electric	1
	SUCTION CATHETERS	Flexible, sterile, individually wrapped. Sizes 12, 14. Each size	4
	SUCTION CATHETERS	Rigid, sterile, individually wrapped. Size 14	4
	RYLES TUBE	Sterile, individually wrapped. Size 14	2
CERVICAL CONTROL	HARD CERVICAL COLLARS	One size e.g. Stifneck Select	6
	SOFT CERVICAL COLLARS	Short, regular, tall. Each size	2
	HEAD BLOCK		1
	LONG SPINAL BOARD		1
CRICOTHYROID -OTOMY	CRICHOTHYROID-OTOMY CANNULA	14g	2
SUPPLEMENTAL OXYGEN	MEDICAL OXYGEN CYLINDER	F size with flowmeter, pressure gauge and key	1
	SPARE MEDICAL OXYGEN CYLINDERS	F size	2
	OXYGEN TUBING	Disposable, 2m	10
	OXYGEN MASKS	Adult, disposable, high oxygen concentration type with rebreathing bag e.g. Hudson,	12
	OXYGEN CYLINDER TROLLEY	F size	1

VENTILATORS	MANUAL RESUSCITATION DEVICES	Adult with oxygen reservoir, masks, head strap and extension tube e.g. Laerdal adult resuscitator, Ambu bag	2
	GAS POWERED RESUSCITATION DEVICES	Adult with masks e.g. Mars, Pneupac	1

SECTION V MEDICAL EQUIPMENT, FURNISHING AND SUNDRIES Page 4

	ITEM	DESCRIPTION	Quantity
VENTILATORS Cont….	SPARE MEDICAL OXYGEN CYLINDERS	D size	4
AIRWAY NARROWING	NEBULISER	Gas powered masks	5
ENTONOX	ENTONOX DELIVERY SYSTEM	Including pressure gauge, demand value and key. D size	2
	SPARE ENTONOX CYLINDERS	D size	4
INTUBATION	ENDOTRACHEAL TUBES	Cuffed, c/w connector. Sizes 7.5, 8.5, 9. Each size	3
	ET TUBE INTRODUCER		2
	LARYNGOSCOPE	Penlon type with McIntosh Blade or similar with spare bulbs and batteries. Adult size	2
	MAGILL'S FORCEPS	8"	2
CIRCULATION	INTRAVENOUS CANNULA	With injection port. Sterile, individually wrapped. Size 20G, 18G, 16G and 14G. Each size	25
	WINGED BUTTERFLY NEEDLE INFUSION SET	Sizes 23G and 21G, each	25
	INTRAVENOUS INFUSION SETS	Sterile, individually wrapped	35
	DRIP STAND	Trolley	1
	ARM SPLINT	For INFUSION	3
	TOURNIQUETS	Regular and large. Each size	2
	INTRAVENOUS CANNULA DRESSINGS	E.g. Vegafix, Opside	30
	SEMI AUTOMATIC DEFIBRILLATOR	With printer, spare pads, electrode gel	1
	ECG - 12 LEAD	With page printer (may be combined with defibrillator)	1
URINARY	URINARY	Sterile, individually	3

TRACT	CATHETERS – FOLEY, SIMPLASTIC	wrapped. Sizes 12, 14 & 16 FG. Each size	
	URINARY DRAINAGE BAG	With hourly urine volume meter. Disposable, sterile, individually wrapped	6
	CATHETER SPIGOTS	Sterile	10
	CATHETERISATION PACKS		5

SECTION V MEDICAL EQUIPMENT, FURNISHING AND SUNDRIES Page 5

	ITEM	DESCRIPTION	Quantity
URINARY TRACT Cont….	URINARY DRAINAGE BAG HOLDER		2
SPLINTS	GUTTER	Adult set	3
	VACUUM	Set c/w pump	2
	EXTRICATION DEVICE	e.g. KED	1
	FEMORAL TRACTION SPLINT		1
	MALLET FINGER SPLINT	Medium and large, each	5
	ZIMMER SPLINT	½”	3
STRETCHERS	BASKET		3
	SCOOP	Complete	1
	VACUUM STRETCHER		1
	HYPOTHERMIA BAG	Quilted	2
	CARRYING CHAIR		1
DIAGNOSTIC	STETHOSCOPE	Good quality	3
	SPHYGMO-MANOMETER	Anaeroid, Regular cuff	3
	SPHYGMO-MANOMETER	Anaeroid, large adult cuff	1
	DIAGNOSTIC SET	Ophthalmoscope And otoscope with spare bulbs and batteries	1
	TENDON HAMMER	(large with plastic shaft)	1
	NEUROTIPS	Box	1
	THERMOMETERS	• Electronic tympanic membrane temperature sensor. • Low Reading • Ordinary Range	1 2 2
	CLINICAL SCALES		1
	HEIGHT MEASURE		1
	PEAK FLOW METER	Plus reference chart	1
	PEAK FLOW METER TUBES		100
	URINALYSIS TEST STRIPS		1

	MSSU BOTTLE with PRESERVATIVE	Plus laboratory request forms	5
	STOOL POTS	Plus instructions and laboratory request form	10
	PREGNANCY TEST KIT	e.g. Clearblue	1
	BLOOD GLUCOSE TEST KIT	e.g. Advantage II x 50 strips plus Accu-Chek meter	1

SECTION V MEDICAL EQUIPMENT, FURNISHING AND SUNDRIES Page 7

	ITEM	DESCRIPTION	Quantity
DIAGNOSTIC Cont….	LANCETS for use with blood glucose strips	Sterile, pack plus blood test pen e.g. Softclix	1
	MALARIA TEST KIT	e.g. Amrad ICT near patient test kit - **if** vessel visiting malarious zone	1
EYE	PEN TORCH	With blue filter	2
	ILLUMINATED MAGNIFIER	On trolley or with wall fitting	1
	EYE ROD	Glass	3
	SNELLEN CHART	3 or 6 m, may be back illuminated	1
	EYE MAGNET		1
THROAT	WOODEN TONGUE DEPRESSORS		100
NOSE	THUDICHUM SPECULUM		1
INJECTION	SYRINGES	Disposable, sterile, individually wrapped Size 2 ml Size 5 ml Size 10 ml Size 20 ml	 100 100 100 10
	HYPODERMIC NEEDLES	Disposable, sterile, individually wrapped Size 26G x 17 mm Size 21 G x 40 mm	 100 100
SUTURING / MINOR SURGICAL PROCEDURES	SUTURES	Sterile, individually wrapped Size 2/0 silk with cutting needle, half circle Size 3/0, silk with cutting needle, half circle Size 4/0, prolene with cutting needle, half circle Size 2/0, catgut, chromic with cutting needle	 12 12 12 12
	SUTURE CUTTERS	Disposable, sterile, individually wrapped	12
USE SINGLE USE INSTRUMENTS	*NEEDLE HOLDER*	*Kilner, Mayo-Hegar or similar.* *5 – 7”*	1

e.g Instrapac from Robinson Healthcare	*DISSECTING FORCEPS*	*Metal, toothed 5”*	2
	ARTERY FORCEPS	*Mosquito, Spencer Wells or similar. 5”*	2
	SURGICAL DRAPES	Disposable, sterile, individually wrapped. 36” 36”	30
	DRESSING PACK	Medium with Cetrimide	10
	ITEM	**DESCRIPTION**	**Quantity**
SUTURING / MINOR SURGICAL PROCEDURES Cont….	SCISSORS	Stainless steel. S/B 6” Stainless steel. S/S 6”	2 2
	BANDAGE SCISSORS	Lister angled 7” or similar, stainless steel	1
	CLOTHING SCISSORS	Tough cut or similar.	3
	SCALPELS	Disposable, sterile, individually wrapped. No. 10 blade.	10
	TOWEL CLAMP	Jones 3.5” or similar	4
	RING SAW		1
	SPLINTER FORCEPS	Martin 5” or similar	1
	SILVER PROBE	6”	2
	SPIRIT LAMP	Glass 50 ml	1
	METHYLATED SPIRIT	500 ml	1
RECEPTICALS / RECEIVERS	INSTRUMENT TRAY	Stainless steel. With cover approx. 12” x 10” x 2”	1
	GALLIPOTS	Disposable, sterile, individually wrapped	30
	LOTION BOWL	Stainless steel, 8” diameter	1
	PLASTIC MEASURING JUG	0.5 litre, graduated	2
	KIDNEY DISH	Stainless steel, 8”	1
PERSONAL PROTECTIVE EQUIPMENT	SURGICAL GLOVES	Disposable, sterile, individually wrapped pairs. Size(s) as appropriate for the Medics	20 pairs
	EXAMINATION GLOVES	Disposable. Medium and large size, each.	100
	SURGICAL MASK	Disposable	50
	PLASTIC DISPOSABLE APRON		50

SKIN	WET ONES	Tubes	2
	HIBISCRUB	500ml	3
	SURGICAL SCRUB DISPENSER	Hibiscrub	1
	LUBRICATING JEL	KY Jel tube	3
	NAIL BRUSHES	Sterile, individually wrapped	30
	DISPOSABLE RAZORS		30
	ICE BAG and cover		2
	HEAT LAMP		1
DISPENSING MEDICINES	TABLET MEASURING DEVICE		1
	BOTTLES	Plastic, disposable for dispensing tablets or capsules	100
	BOTTLES	Plastic, disposable for dispensing liquids, 100 ml	50
	MEDICINE MEASURE	Plastic, graduated, disposable, 20 ml	50
	BOTTLE LABELS		100
COLD	ALUMINIUM FOIL SHEETS		50

SECTION V MEDICAL EQUIPMENT, FURNISHING AND SUNDRIES Page 8

	ITEM	DESCRIPTION	Quantity
CLEANING / CLINICAL WASTE	TRIGENE	3 litres	1
	PAPER TOWEL DISPENSER		1
	PAPER ROLLS	For dispenser	4
	SCRUBBING BRUSH		1
	DRESSING BIN	For clinical waste, pedal operated	1
	PLASTIC BIO HAZARD WASTE BAGS	(yellow)	20
	PRESEPT	600 tablets	1
	SHARPS BIN	4 litre	2
EMERGENCY RESPONSE / TRAINING	MEDICAL RUCK SACK	e.g. Mediquick Zeta, Rescue Medical “Medical Snatch Bag”	1
	RESUSIANNE		1
	BODY BAGS		5
	HEAD TORCH		1
DENTAL	DENTAL CHIP SYRINGE		1
	DENTAL PROBE	Single ended	1
	EXCAVATOR	(125/126)	1
	DENTAL MIRROR AND HANDLE	Size 4 plain	1
	DENTAL ROLLS		100
	SERRATED 15cm STAINLESS STEEL DENTAL TWEEZERS	College Type (No. 8)	1

3. Furnishing and Equipment

ITEM	TYPE	Quantity
DESK	0.8m deep with lockable drawers	1
FILING CABINET	4 drawer, lockable with inserts	1
DRUGS REFRIGERATOR	With integral thermometer	1
MEDICINE CABINET	With controlled drugs locker	1
CHAIR	Tubular steel, padded	2
EXAMINATION COUCH	3 section, adjustable tilt	1
FOOTSTOOL		1
WASTE PAPER BIN	For general waste	1
HOSPITAL TYPE BED	And mattress	1
BED SHEETS		6
DUVETS		2
DUVET COVERS		4
PILLOWS	Non-flammable foam with waterproof cover	3
PILLOW COVERS		6
BEDSIDE LOCKER		1
BED LIGHT	Controlled from bedside	1
SCREEN CURTAINS AND RAIL		0
BED PAN,	Disposable	12
BED PAN HOLDER		1
URINARY BOTTLES	Disposable	12
SPUTUM CUPS AND COVER	Disposable	10
MIRROR		1
CLOCK	With second hand	1
HOT WATER BOTTLE	With fabric cover	1
TRANSFORMER	110v/220v (if US voltage)	2

4. Reference Material

ITEM	Quantity
HSE – Offshore Installations and Pipeworks (First-Aid) Regulations 1989	1
UKOOA - Guidelines for Medical Aspects of Fitness for Offshore Work	1
UKOOA - Guidelines for Environmental Health for Offshore Installations	1
First-Aid Manual (latest edition) depending on number of First-Aiders	5
First-Aid Guide for Chemical Poisoning	1
The Ship Captain's Medical Guide	1
General Medicine and Surgery e.g. Oxford Handbook of Clinical Medicine	1
Accident and Emergency e.g. Essential Orthopaedics and Trauma by David Dandy, Essentials of Immediate Care by Eaton	1
Ophthalmology e.g. ABC of Ophthalmology	1
Dermatology e.g. ABC of Dermatology	1
Otolaryngology e.g. ABC of Otolaryngology	1
Occupational Medicine/Nursing/Hygiene e.g. Practical Occupational Medicine by Seaton	1
British National Formulary (Latest Edition)	1
Medical Adviser's Medicines Formulary	1
Medical Adviser's Standing Orders/Protocol	1
Resuscitation council Adult BLS + Adult ALS posters	1 each
Observations Record Sheet, Including Heart Rate, BP, Temperature, Respiratory Rate and Glasgow Coma Scale	20
Fluid Balance Chart	20
Triage Cards	50

5. Lifeboat, HSE First Aid and Blood Borne Pathogen kits

a) Lifeboat stock (per lifeboat)

ITEM	DESCRIPTION	Quantity
Dressing	Paraffin gauze dressing, pack of 10, 10cm by 10cm	1
	Gauze swabs, sterile, packs of 5, 7.5 cm by 7.5 cm	1
	Assorted adhesive dressings, eg Doctor's set	1
	Steristrips, 75mm by 6mm	20
Bandage	Plastic burns bag for feet or hands	2
	Elastic adhesive bandage, 7.5cm by 4m	1
	Triangular calico bandage	4
	Ambulance dressings Medium Large Extra large	6 2 2
	Safety pins, medium, rustless	6
Resuscitation	Laerdal Pocket mask	1
PPE	Disposable examination gloves, large	5 pairs
Minor surgical procedure	Scissors, sterile, disposable	1 pair

b) HSE First Aid kit

ITEM	Quantity
HSE SPECIFICATION FIRST-AID KIT	One kit per first aider, plus 1 Laerdal Pocket Mask and 2 pairs of large examination gloves

c) BLOOD BORNE PATHOGEN KIT (one per vessel)

ITEM	DESCRIPTION	Quantity
Syringe	Sterile, 2ml and 10ml, each	10
Hypodermic needle	21G x 0.8mm	20
IV giving set	Sterile	1
IV cannula	18G and 14G, each	2
Alcohol swabs	Eg Mediswabs	20

Examination gloves	Large, disposable	2 pairs
Polythene bag or box	To hold the above	1

SECTION VI PUBLIC AND ENVIRONMENTAL HEALTH

SECTION VI PUBLIC AND ENVIRONMENTAL HEALTH

APPENDIX 1

Appendix 1

FIRST AID TRAINING

Recommended topics to be covered

- Theory and Practice of control of Airway/Breathing/Circulation including CPR.
- Management of the conscious and unconscious casualty including examination techniques and medical records.
- Recognition and management of external and internal bleeding and the effects of shock.
- Burns and scalds
- Practical bandaging, immobilisation and casualty handling including cervical and other spinal injuries and the use of stretchers
- Eye injuries
- Poisoning including H_2S, HF and Ethanol
- Hypothermia
- Recognition of medical equipment, their uses, how to assist the Medic in an emergency and the use of Personal Protective Equipment.
- Practical exercises incorporating more than one casualty and triage.
- Action to be taken in the event of the Medic's incapacitation.

Tests should be used to confirm that First Aiders have absorbed their teaching.

CAPITA
HEALTH SOLUTIONS

APPENDIX 2

Appendix 2 - Medevac Notification Fax

CAPITA HEALTH SOLUTIONS	Foresterhill Road Aberdeen AB25 2ZP Tel: 01224 669000 Fax: 01224 669030

Medevac Outcome Notification

MEDIC NAME …….. **FAX…….**
HR NAME…….. **FAX…….**

PART 1 – TO BE COMPLETED BY OFFSHORE MEDIC AND A COMPANY EMPLOYEE

Name:……

DoB:……

Occupation:……

Employer:……..

Installation:……

Operator:……

Date:……

PART 2 - PHYSICIAN ASSESSMENT

The above individual was medically evacuated from offshore today.

Following advice/assessment he/she was found to be

Fit to return to full range of duties including work offshore □
Fit to return to restricted work offshore □
Fit to return to restricted work onshore only □
Required treatment beyond first aid □
Experienced loss of consciousness □
Unfit for any work □

DISPOSAL
Referred to the Accident and Emergency/Eye Casualty Department at □

CAPITA
HEALTH SOLUTIONS

APPENDIX 2

Aberdeen Royal Infirmary.

Admitted to Ward _____ at Aberdeen Royal Infirmary.	□
Referred home to the care of his/her own GP/Dentist for further assessment and treatment.	□
Advised he/she be kept in Aberdeen overnight and will be reviewed tomorrow.	□

Estimated number of days before fit for full duties	
Illness or injury is thought to be work related	Yes/No

Name and Signature of Examining Physician……

APPENDIX 3

Appendix 3

Prescribed Medicines Offshore

Prescribed medicines may impair a person's ability to work safely or indicate a condition which is incompatible with safe working.

The Medic should consider whether a medication prescribed onshore or by the Medic him/herself could impair safe working. Medications, which indicate on the label or in the BNF that they can affect the safe operation of machinery or driving, are usually not compatible with safe work offshore.

Employees arriving offshore with the following medicines should be referred to the company medical adviser (or topside medical emergency service in his or her absence). Medics should not issue or re-supply these drugs to patients without discussing the case with a doctor.

1. Cardiac

Ask why the drug is being taken. Employees with current cardiac symptoms such as angina, palpitations, breathlessness are likely to be unfit for work. Those whose drugs successfully control their symptoms may be fit.

Warfarin requires an individual case risk analysis.
Antihypertensives are normally acceptable. However, certain antihypertensive drugs require careful consideration with a doctor such as **Alpha-Blockers** (e.g. Indoramin) and **centrally active drugs** such as methyldopa, moxonidine.

2. Respiratory

Sedating decongestants or **antitussive** drugs are unacceptable while the employee is working (e.g. those with sedating antihistamines or opiates). It may be acceptable to issue such drugs before going to bed. Simple linctus is preferred during the day.

Oral bronchodilators (e.g. **Theophylline**) are unacceptable due to the underlying severity of the asthma for which this drug is necessary and its side effects in excess.

Oral steroids (e.g. **Prednisolone**) are acceptable but the reason for taking them is not usually acceptable.

3. Anti-infective

No major problems with these drugs.

APPENDIX 3

Personnel taking **Quinolones** e.g. **Ciprofloxacin** should be asked if they have experienced any dizziness or drowsiness. If so, the case should be discussed with a doctor.

Mefloquine during the first three weeks of use may cause adverse effects such as anxiety. This does not apply if the person has used it uneventfully previously. Ask the employee about any symptoms they have experienced if they are a first time user of Mefloquine and discuss with the doctor.

4. Gastro-intestinal.

Co-Phentrope (Lomotil) has central effects and may cause drowsiness. Ask the employee about such symptoms and if there are none take no further action. Otherwise phone a doctor for advice. Loperamide (Imodium) or low dose Codeine Phosphate (e.g. Kaodene) is acceptable.

5. Endocrinology

Insulin Patients on insulin require an individual case risk assessment.

6. Analgesics

Dihydrocodeine (including Co-Dydramol), Co-Proxamol, Buprenorphine, Pethidine and stronger opiates, Tramadol, Nefopam, Pentazocine are not acceptable except immediately prior to medical evacuation.

Low dose codeine (<= 60mg/day), paracetamol, aspirin and other NSAIDs are acceptable.

7. Hypnotics/sedatives

All benzodiazepines are unacceptable except immediately prior to medical evacuation. No-one should return to work under the influence of a benzodiazepine. Short acting hypnotics such as Zolpidem are acceptable for at most two nights.

8. Antidepressants and other psychoactive drugs

Tricyclic antidepressants, Monoamine Oxidase inhibitors, major tranquillisers, Lithium are unacceptable.

SSRIs (e.g. Fluoxetine, Paroxetine, Sertraline) may be acceptable. The patient should be asked whether they have experienced any side-effects particularly sedation and why they are taking the drug. Those with symptoms or persisting depression should be discussed with a doctor.

APPENDIX 3

9. Cytotoxics and immunosupressants.

Active cytotoxic drugs are unacceptable.

APPENDIX 3

Tamoxifen may be acceptable. **Azathioprine, carbimazole, propylthiouracil, oral steroids** and **aminosalicylates** may be acceptable but should be discussed with a doctor. In all cases, the reason why these medicines are being taken should be discussed with the doctor.

10. Miscellaneous. High dose caffeine tablets (stimulant), anabolic steroids and amphetamine derivatives (for slimming, attention deficit) may cause behavioural disorders and should be discussed with a doctor.

APPENDIX 4

Appendix 4

COMMUNICATIONS

The Medic should consult the Topside Medical emergency service about any serious medical problem related to the health care of an offshore worker - be this urgent or non - urgent. The Medic must always consult the on call doctor prior to evacuating anyone. This service should be available 24 hours per day. It is not necessary to refer all dental problems or personnel requiring compassionate leave unless they are particularly unwell.

The company medical adviser should be consulted about broader issues with implications for the whole company. This service will be available during normal working hours.

When you contact the Topside service speak slowly and use the phonetic alphabet if necessary. You will need the following information (have the patient nearby so that you can ask him questions as you talk to the doctor):

- FIRST NAME
- LAST NAME
- DATE OF BIRTH
- OCCUPATION
- EMPLOYER
- OPERATOR
- LENGTH OF TIME OFFSHORE THIS TRIP
- MEDIC'S NAME

- History of the presenting complaint with relevant associated features (positive and negative), examination findings and treatment to date.
- Previous medical history, allergies
- Present medication
- Your diagnosis and suggestions/questions about further management.

It is also useful to have your contact number to hand if you anticipate the doctor will need to call back.

When using the Capita Occupational Health Topside Medical Service call after 8 am if possible if you plan to evacuate a patient that day as the receiving doctor comes on duty at 8 am. The exception to this would be any urgent case when you should call as soon as possible. Do not send all medevacs to Foresterhill Road automatically as some patients may be seen at other health centres. It is the installation's responsibility to organise helicopter and transport for non - ambulance cases. A referral letter is necessary for all medevaced patients marked 'Medical in

APPENDIX 4

confidence'. The doctor will arrange for the hospital helipad to be opened and an ambulance to meet the patient if necessary.

COMMUNICATIONS

BASIC MEDICAL TERMINOLOGY

Confusion readily occurs when non standard words are used to describe a patient. Use the following in your communications. The body is presumed to lie in the anatomical position.

POSITION

LATERAL	Away from the midline of the body.
MEDIAL	Towards the midline of the body.
PROXIMAL	Towards the root of the limb or towards the head.
DISTAL	Away from the root of the limb or head.
ANTERIOR	Towards the front of the body. On the hand and foot, this may also be termed palmar and volar respectively.
POSTERIOR	Towards the back of the body. On the hand and foot, this may be termed dorsa.
SUPERIOR	Towards the head end of the body.
INFERIOR	Towards the foot end of the body.

ANATOMY

FINGERS and FINGER JOINTS.

These are described as Thumb, Index, Middle, Ring and Little.
The joints are called (going from finger tip proximally) Distal Interphalangeal, Proximal Interphalangeal and Metacarpophalangeal. The thumb has only an Interphalangeal joint.

TOES.

These are numbered 1 (Big Toe) to 5 (little toe).
Joints are described as for finger except for Metatarsophalangeal instead of Metacarpophalangeal.

MOVEMENT

FLEXION	This means bending the limb up towards the body. When applied to the spine it means bending the spine in any direction except bending backwards e.g. forward flexion. Bending the spine backwards is extension.
EXTENSION	This is the opposite to flexion.

APPENDIX 5

Appendix 5

Dispensing Label

Below is an example of the label which will be attached to the boxes of controlled drugs supplied by
D M Wood Medical Ltd.

APPENDIX 6

Appendix 6

Directions & Map to D M Wood

Directions & Map to D M Wood Medical Ltd from Aberdeen Airport vicinity in Aberdeen:

From the heliports, make your way onto Dyce Drive.

After the airport traffic lights, take the second junction on the right into Kirkhill Place.

Take the second opening on the right. Follow the car park round – D M Wood Medical is located at the far end of the car park.

APPENDIX 7

Appendix 7

MEDICAL SCREENING
FOR FOOD HANDLING

NAME:	**DATE OF BIRTH:**
	AGE:

Have you suffered from any of the following during your field break?

1.	Diarrhoea and vomiting/food poisoning	YES / NO
2.	Ear trouble or infected ear	YES / NO
3.	Chest trouble with cough and phlegm	YES / NO
4.	Eczema/dermatitis/skin problem	YES / NO
5.	Acne, boils, styes and septic fingers	YES / NO

During the field break did you:

6.	Visit your doctor?	YES / NO
7.	Visit your dentist?	YES / NO
8.	Travel abroad?	YES / NO

SIGNATURE:	DATE:

APPENDIX 7

TO BE COMPLETED BY MEDIC:

CHECKS	SATISFACTORY	UNSATISFACTORY	COMMENTS
Eyes and Eyelids			
Ears			
Nose			
Teeth			
Hair and Scalp			
Skin			
Hands			
Fingernails			
Personal Hygiene			
Stool Specimen (if indicated)			

RESULT OF CHECK

☐ FIT

☐ UNFIT

☐ REFER TO:

REVIEW DATE:

REASON FOR REVIEW:

ASSESSORS SIGNATURE ASSESSORS NAME DATE

CAPITA
HEALTH SOLUTIONS

APPENDIX 7

CERTIFICATE OF FITNESS FOR FOOD HANDLING DUTIES

NAME OF EMPLOYEE: _____

INSTALLATION: _____

JOB TITLE: _____

This is to certify that the above named employee was examined on

_____

and was found to be:

☐ Fit

☐ Fit subject to

☐ UNFIT for employment in food handling duties.

SIGNED: _____

NAME: _____

DESIGNATION: _____

DATE: _____

APPENDIX 8

Appendix 8

Infectious Disease Notification

From: _____ (Offshore Medic)

Installation:

_____

To: Company Medical Adviser
Operator's Company
Full Postal Address

Fax number and e-mail address.

Date /
Time

Installation / Vessel Originator

DETAILS OF INCIDENT

1. Suspected infection
2. Date and time of onset
3. Number of cases at (time / date)
4. Principal clinical features
5. Suspected source of infection
6. Preventative measures taken
7. Number of cases evacuated
   (i) Point of entry to UK
   (ii) ETA
   (iii) Special requirements for receipt of patients
8. Medical re-supply Yes / No (Specify if Yes)
9. Specimens collected Yes / No

"MEDICAL CONFIDENTIAL"

APPENDIX 9

Appendix 9

Notification of Suspected Food Poisoning

Location
Date / Time of Outbreak
P.O.B.
Number ill
Symptoms Vomiting / Diarrhoea / Fever / Nausea / Abdominal pain
Incubation Period
Schedule of Specimens - Date of Collection

Name of Patient	Employing Company	Age	Details of Specimen*

Nature of Food Sample	Code Number	Expiry Date	Date of production

Samples submitted by: .....

(NAME IN BLOCK CAPITALS)

Address

Telephone No.

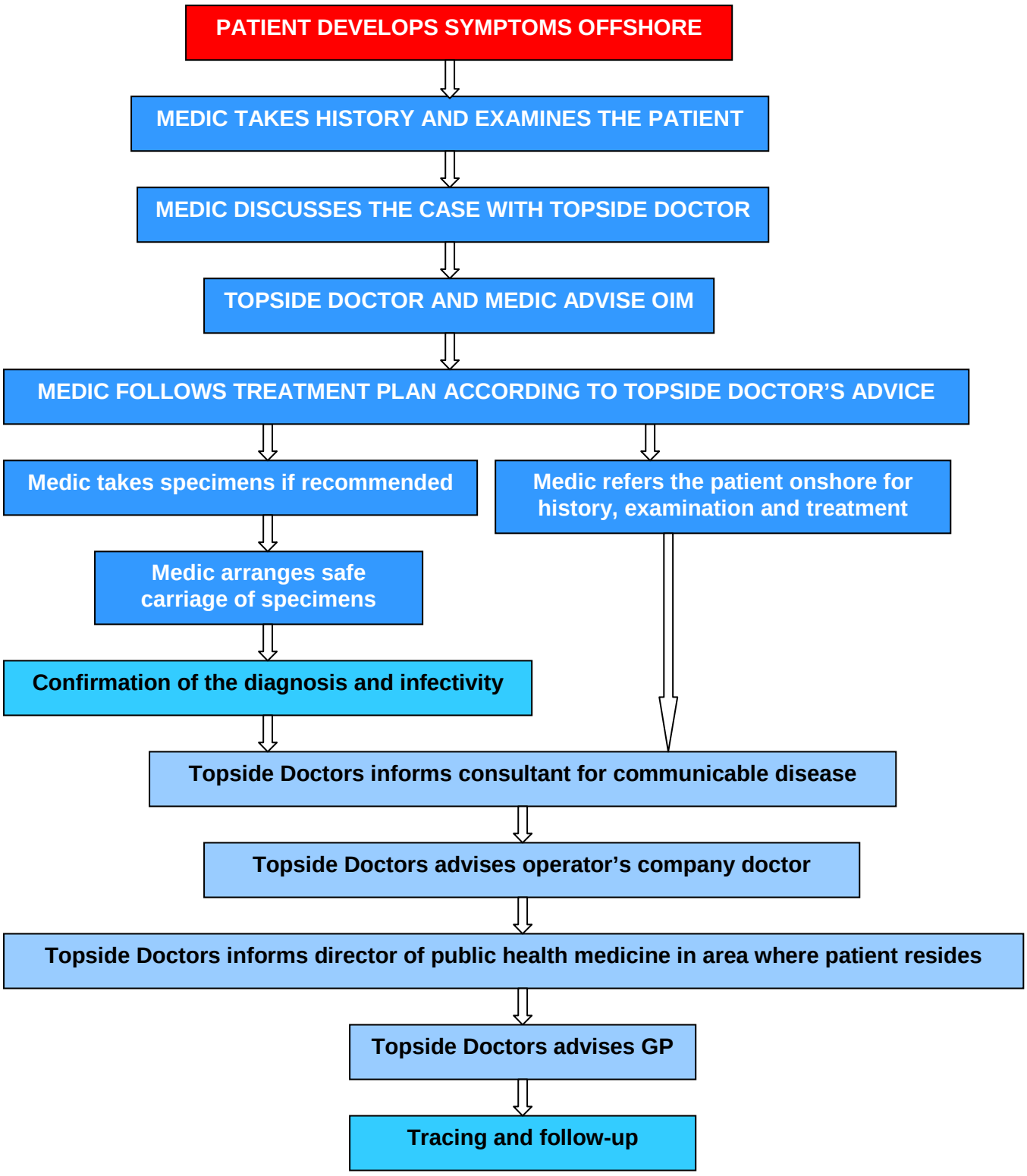
* *Individual specimens MUST have patient's name printed on the container label.*

"MEDICAL CONFIDENTIAL"

APPENDIX 10

Appendix 10 – Communicable Diseases Offshore

FLOW DIAGRAM FOR COMMUNICABLE DISEASE OFFSHORE



CAPITA
HEALTH SOLUTIONS

APPENDIX 11

APPENDIX 12

Appendix 12

Equipment Tests and Checks

The medic should undertake the following weekly tests and checks on equipment and stock:

Pharmacy Supplies
Controlled Drugs and register POM and OTC medication
- Stock levels
- Expiry dates

Medical Gases
Oxygen
- Cylinder pressure
- Flow line and valves

Entonox
- Cylinder pressure
- Flow line and valves

Medical Equipment
Defibrillator
Resuscitation equipment
Diagnostic equipment
Triage equipment
- Check for integrity and function

Consumables
Sick Bay
Triage Packs
- Stock levels
- Expiry dates

First Aid Supplies
First aid boxes
Eyewash stations
- Stock Levels
- Expiry dates