



# SYNERGY

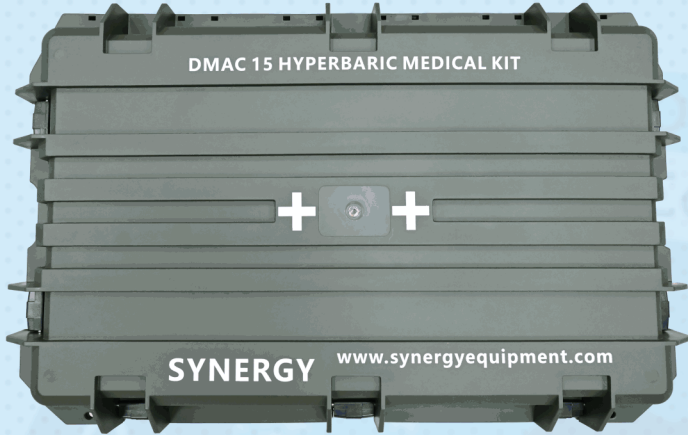
INNOVATIVE DIVING EQUIPMENT TRADING LLC

INSPIRING • ENGINEERING • INNOVATION



## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

Medical Equipment to be Held at the Site of an Offshore Diving Operation





## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

Commercial diving operations include both surface supplied and saturation diving operations and cover a wide range of work activities. The appropriate medical equipment to be held at any particular site is best determined by an occupational health service with special knowledge of commercial diving operations. This document is designed to provide guidance on equipment and medical supplies to be held at the site where such advice is not available. It is recognised that in certain circumstances similar or greater facilities may be available from other sources which are sufficiently close and reliable. Geographical distances to both equipment, pharmaceutical agents and other competent personnel/specialists should be considered and evaluated before the commencement of Diving Operations (i.e., SAR helicopter capabilities). This document will use the term *Vessel Medic* for the personnel with the responsibility for medical examination and treatment of ill or injured divers. We recognize that this function in some areas will be handled by a vessel medical officer, a dedicated vessel nurse or a vessel physician, or even a DMT in surface supplied operations.

The document covers equipment and drugs suitable for the treatment of diving related disorders on the surface or in a recompression chamber and for other potential problems (e.g. trauma) which may occur during diving operations. The document takes into account situations where the diving operation may be remote from a vessel or installation sickbay and medical services. It includes equipment for use in an immediate first aid situation, equipment and drugs which may be used by personnel with advanced first aid training, as well as equipment which would almost certainly only be used by medical staff. Medical staff who attend a casualty at a dive site may not necessarily be able to bring the appropriate equipment.

Each diving contractor's Diving Medical Advisor (DMA) is responsible for a review of the equipment and drugs, as some of the drugs mentioned in this document may not be available in some geographical areas and in such cases alternative drugs to those identified and 'suggested' should be considered. Compliance with the local laws relating to pharmaceutical products will also have to be considered, as these vary in different countries. It is anticipated that except in emergency situations, equipment other than that in the bell or chamber immediate care medical kits would be for use by or on the direction of medical staff. DMAC advises that the medical emergency preparedness is regularly reviewed, and that the robustness for the defined possible scenarios is clearly defined.

Medical equipment and drugs must be sourced and purchased from reputable suppliers capable of assuring the quality and safety of the purchases made. There should be an appropriate system for the control and maintenance of this Medical Kit and responsibility for this Kit should be vested in the Diving Superintendent or vessel Medic. The respective responsibilities and authority of the parties involved need to be clearly documented and understood. This Kit should be accompanied by a list of contents. This list provides an opportunity for stock control, shelf-life control, and the recording of the use of the contents. These measures should be regarded as standard procedure. A specific logbook should be maintained with the equipment and supplies, in which these checks and all use of equipment and drugs is recorded.

The Diving Supervisor needs to have access to this Medical Kit at all times. Scheduled or Controlled drugs should be held in a dedicated and secure double locked container (with the vessel's medical supplies or in the installation sickbay). The Medical Kit should be appropriately labelled and then inspected regularly (during each mobilisation and at least every six months) to ensure that all items are in working order (e.g. batteries) and to exchange drugs and other equipment which are nearing the end of their shelf life. These regular inspections should be recorded in the logbook.

Consideration should be given to the need for pressure testing mechanical or electrical equipment. Local conditions may require a more frequent inspection regime. People involved in the provision of care in diving situations should be part of a system of continuous training to help prevent skill fade. At all times, including during transit to the diving worksite or diving support vessel, this Medical Kit must be kept dry and clean, locked in an appropriately labelled and dedicated light-resistant container. Care must be also taken to ensure that this equipment is stored within a temperature range of +4o to +25o Celsius. The kit should be packaged and labelled in a logical manner that allows easy and rapid access to the contents, specifically those contents that are often used at the same time.

This is a guidance document based on current information. This Medical Kit will not cover all the aspects of medical care in a diving system and should be used in conjunction with the installation or vessel's medical kit. DMAC 15 should also be read in conjunction with DMAC 28 "The provision of emergency medical care for divers in saturation".

There should thus always be good communication between the diving team and the Vessel Medic.



UAE-UK-INDIA-AZERBAIJAN-SINGAPORE

## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

### I Equipment to be Held in a Diving Bell and Hyperbaric Welding Habitat (to be stored in a watertight bag or container)

- 1 Emergency limb tourniquet (e.g. CAT® or MAT®)
- 3 Polythene bags – these can be used to cover burns or as waste bags
- 1 Resuscitation face mask (preferably with a silicone filled face seal and a non-return valve) or shield, for mouth-to-mouth ventilation (e.g. Laerdal pocket mask or face shield)
- 2 Oropharyngeal airways size 3 and 4 (e.g. Guedel type)
- 1 or 2 correctly sized Supraglottic airways (e.g. iGel sizes 3, 4 or 5) with catheter mounts and filters. This will require the assessment of the divers using the bell or habitat at any given time.
- 1 Tuff cut scissors
- 2 Triangular bandages
- 1 Roll of 1 inch adhesive tape
- 2 Crepe bandages – 3 inch
- 1 Hand operated suction pump
- 1 Wide bore suction catheter (for example: Yankeur)
- 1 Watertight bag
- 1 Adult adjustable cervical spine collar
- 2 Pairs of non-sterile gloves (non-latex, appropriately sized)
- 2 x small “pods/sachets” of sterile water or NaCl for eye wash
- 1 Medium dressing
- 1 Large dressing

### Equipment to be available for immediate use in a living chamber (DDC)

The same equipment as for the Diving Bell, should be available for rapid use in each living chamber of a saturation system and in each air diving chamber/Deck Decompression Chamber (DDC).

In 'living' chambers a foot or gas-powered suction pump may be preferred. The watertight bag is not required within 'dry' living chambers and it is acceptable that this equipment may be stored outside the system ready to be passed in immediately, as required.

If more of specific items are required these should be found in the normal ships' medical stores.

It is not necessary to have one set per living chamber in a saturation system, but it is suggested there is 1 set per 3 chambers and that this might be stored near sat control to be easily accessible.

### 2 Equipment to be Held in a Hyperbaric Rescue Unit (HRU) Compartment (or within the surface compartment of a self propelled hyperbaric lifeboat):

- 1 Emergency limb tourniquet (e.g. CAT® or MAT®)
- 3 Polythene bags
- 1 Resuscitation face mask (preferably with a silicone filled face seal and a non-return valve) or shield, for mouth-to-mouth ventilation (e.g. Laerdal pocket mask or face shield)
- 2 Oropharyngeal airways size 3 and 4 (e.g. Guedel type)
- 1 Tuff cut scissors
- 1 Medium dressing
- 1 Large dressing
- 2 Triangular bandages
- 1 Roll of 1-inch adhesive tape
- 2 Crepe bandages – 3-inch
- 1 Hand operated suction pump
- 1 Watertight bag
- 1 Wide bore suction catheter (for example Yankeur)
- 1 Adult adjustable cervical spine collar
- 1 – 2 boxes of non-sterile gloves (non-latex, appropriately sized)
- 2 x small “pods/sachets” of sterile water or NaCl for eye wash

Sealable vomit and metabolic waste bags must be provided that allow for safe containment and disposal of this waste. Suggested: Absorbeze Maxi Sick Bags. Consideration should be given to the number of occupants and possible time expected before retrieval. A minimum of 15 per occupant is required.

Given the confines of the evacuation unit and the potential for contamination, anti-diarrhoeal preparations such as Imodium should be considered. Fluid replacement supplies which can be primarily water, to allow approx. 100-150mls per man per hour, must be available. Rehydration preparations to maintain electrolytic balance should also be considered as essential to augment the fluid balance of both the dive and surface crew.



## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

**In the event of the requirement for hyperbaric evacuation, the following need to be available for immediate passing into the chamber prior to the divers entering the HRU. The surface support crew also need to be given the same medication:**

Each team member (both divers and surface support crew) should chew 2 x 300µg tablets of hyoscine hydrobromide and have a Scopolamine patch placed behind one ear prior to evacuation into an HRU.

The 2 hyoscine hydrobromide tablets will take effect within 30mins and last approximately 7-8 hours, after which the dermal patches will become effective and last approximately 72 hours.

The number of tablets and patches required depends on the number of people within both the dive team and surface support team, and will need to be calculated prior to each mobilisation.

There should be extra tablets and patches available for the dive and support team in case of failure of the adhesiveness of the dermal patches.

### 3 Equipment to be held for a Hyperbaric Reception Facility

A full DMAC 15 kit, excluding the drugs, should always be deployed with the HRF. Arrangements should be in place as part of any project specific Hyperbaric Evacuation Plan with a local hospital or medical supplies

facility to provide further medical equipment and the drugs as needs be, within an appropriate timescale. This requires prior preparation and planning. A risk assessment should be undertaken to assess what drugs and extra equipment may be needed and ensure that they will be available from the local supplier, at short notice.

### 4 Equipment to be Held at the Dive Site:

#### Diagnostic Equipment

- 1 Pencil torch
- Electronic Thermometer(s) to cover the range 26°C to 43°C
- This could be one or 2 thermometers
- Sheaths to allow multiple use.
- 1 Stethoscope
- 1 Aneroid sphygmomanometer
- 1 Reflex hammer
- 1 Tape measure
- 2 Tuning forks (128Hz and 256Hz)
- Pins for testing sensation (e.g. Neurotips)
- Blood sugar testing equipment.
- Tongue depressors
- Urine testing strips
- 1 Otoscope (with spare bulb and batteries and disposable ear pieces)

#### Thoracocentesis / Chest Decompression

- 2 Intercostal drain and drainage kits – preferably those without sharp metal 'trocar' introducers (e.g. Portex flexible introduce type) Primarily for use by suitably trained doctors.
- 4 x devices for emergency needle Chest Decompression
- 2 Heimlich Valves
- Suitable strapping/fixing to secure the system appropriately

#### Urinary Catheterisation

- 2 Urinary catheters (preferably non latex) sizes 14 and 16 or 18 (e.g. Foley type)
- 2 Urine collection bags
- 2 Catheter spigots (optional)
- 2 x 20ml sterile water
- 2 Urethral anaesthetic gel
- Suitable strapping/fixing to secure the system appropriately

## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

### Dressings

- 10 Packets gauze squares 10 x 10cm
- 5 Packets cotton wool balls
- 4 Triangular bandages
- 4 Trauma care bandages
- 12 Safety pins
- 2 Adhesive bandage 75mm x 3m
- 2 Adhesive bandage 25mm x 3m
- 2 Crepe bandages 6 inch
- 2 Crepe bandages 3 inch
- 2 Large dressings
- 2 Medium dressings
- 40 Adhesive plasters
- 2 Dressing bowls
- 4 Eye pads
- 1 Eye wash kit
- 5 x Soft silicone primary wound dressing (8cm x 10cm) (e.g. Mepitel)

Equipment to immobilise fractured/sprained limbs (e.g. a 36 inch SAM splint, which can be cut to size as required)

### Sterile Supplies – Genera

*There are many options of disposable sterile supplies which can be considered but should contain at least the following.*

- 4 Universal containers
- 2 Drapes 60 x 90cm
- 10 non-alcohol swabs or sachets of skin disinfectant (e.g. Cetrimide solution)
- 10 pairs of sterile gloves (selection of sizes, preferably non-latex)
- 6 Sutures non-resorbable (e.g. nylon) (3/0 and 4/0), preferably with cutting needles attached
- 1 Medium sized sharps bin
- 5 x 20ml syringes
- 5 x 10ml syringes
- 5 x 2ml syringes
- 10 x 18g needles
- 10 x 21g needles
- 4 packets of Steri-strips (paper stitches)
- One bottle of antimicrobial surgical skin cleanser (e.g. Hibiscrub, similar chlorhexidine based cleansers)

### Sterile Supplies – Specific

Disposable sterile procedure packs should be obtained to lock into the chamber for specific procedures such as Minor operations, Urinary Catheterisation, Thoracocentesis and Suturing procedure packs for example. To contain the equivalent of:

- 1x Kidney Dish,
- 1x 60-100 ml bowl (Gallipot)
- 10 sachets of skin disinfectant (e.g. Cetrimide solution)
- 10 x 7.5cm 4ply Non Woven Cotton Swabs,
- 4 x Dressing Forceps,
- 2 x Tissue Backed Drapes 60 x 90cm,
- 1 x Yellow Bag (for disposal of used items)

## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

### Sterile Instruments

- 2 Spencer Wells forceps 5 inch
- 1 Mosquito forceps
- 1 Dressing forceps
- 2 Disposable scalpels
- 1 Forceps – fine toothed
- 1 Dressing scissors
- 1 Scissors – fine pointed
- 1 Stainless steel ring cutter (for removal of rings and other piercings) – this does not need to be sterile

### Intravenous Access

- 1 Tourniquet to aid venous access
- 3 IV/IO Giving sets
- 4 IV cannulae 16g
- 4 IV cannulae 18g
- 4 Butterfly infusion sets 19g (optional)
- 2 Magnetic hooks
- 4 x 3-way IV taps
- 10 x IV cannula dressings
- A pressure bag for rapid infusion of fluids.

•Intraosseous (IO) infusion system.

A minimum of 2 sets of devices are required.

It is suggested that manual or spring loaded placement systems are used.

If used, the DMTs must be appropriately trained in and up to date with the system chosen and used by each diving company. The use of battery operated placement systems in a hyperbaric chamber environment is contraindicated

### Resuscitation

- Self-inflating bag-valve-mask / Resuscitator to include reservoir and connection for BIBS gas (e.g. Laerdal type)\*
- 3 Resuscitation masks with silicone face seals (varied sizes)
- 1 Pocket resuscitator with one-way valve (e.g. Laerdal pocket mask with a silicone face seal and non-return valve) or face shield for mouth-to-mouth ventilation
- 3 Supraglottic airways sized for adult males (e.g. Igel sizes 3, 4 and 5) with catheter mounts and filters – if female divers on board ensure there are correctly sized airways for them
- (optional) Endotracheal tubes (ET tubes) (e.g. sizes 7, 8 and 9) with catheter mounts and filters and an Intubation Stylet\*\*
- (optional) Laryngoscope and batteries and spare bulbs. The use of Laryngoscopes with fibre optic disposable blades is encouraged. This is required if ET tubes are stored
- 2 Oropharyngeal airways sizes 3 and 4 (e.g. Guedel type)
- 1 Foot operated or gas powered suction device
- 2 Endotracheal suction catheters
- 2 Naso gastric tubes size 16
- 2 Wide bore suckers
- (optional) 2 Nasopharyngeal airways e.g. size 6 and 7 with flange,
- 1 Magill Forceps
- A nebuliser mask and associated tubing

1 Automated external defibrillator. If this is to be used inside the chamber or hard wired into the chamber it should be appropriately tested for such use.

\* Resuscitators may require modification to gas inlet to ensure adequate filling at pressure

\*\* Endotracheal tubes should be provided for use by doctors only

For Surface Supplied diving there should be oxygen delivery systems available to enable normobaric oxygen therapy for each diver for the time required to reach any therapeutic facilities. As an absolute minimum there should be capacity for 4hrs treatment with FIO<sub>2</sub>≈1.0. Rebreather systems such as the "Wenoll emergency oxygen rebreather" system should be considered to extend the life of any oxygen cylinder.

## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

### 5 Drugs

These drugs should be present on the vessel (DSV) or installation and stored within the sick bay or medical facility. There is no requirement to have a specific set of DMAC 15 drugs completely separate from the vessel's or installation's normal inventory. However, the below drugs should be auditable as present prior to each diving operation in sufficient quantities to support the diving operations. There should be an appropriate system in place to replenish used items in a timely fashion.

A risk assessment must take place prior to any diving operation to consider the risks involved, the location and the time it would take to get any sick or injured diver to a place of definitive medical care. Thus, for example, for Saturation diving the type of work being performed (E.g. risk of trauma), the depth of the diving and the time for decompression are amongst the issues that need to be considered. This risk assessment may guide the choice of drugs required.

The drugs mentioned below are suggestions and the Diving Medical Advisor can always make appropriate changes and document these in Appendix 1 as needed. There are some drugs (IM or IV) that now come in prefilled syringes which may be a more suitable alternative to glass filled vials.

Anatomical Therapeutic Chemical (ATC) codes are provided in brackets for guidance.

#### **Anaesthesia (*Lidocaine injection* (N01B B02))**

Suggested: Lidocaine 10mg/ml or 20 mg/ml ampoules 5 x 10ml

Indication: Lidocaine is a useful local anaesthetic

#### **Analgesia (*Soluble aspirin tablets* (N02B A01) )**

Suggested: Soluble aspirin, 20 x 300mg or 20 x 500mg tablets

Indication: Mild to moderate pain, pyrexia, chest pain of suspected cardiac origin

1 to 2 tablets every 4 to 6 hours

#### **Paracetamol tablets (N02B E01)**

Suggested: Paracetamol, 25 x 500mg tablets

Indication: Mild to moderate pain, pyrexia (fever)

1 to 2 tablets every 4 to 6 hours to a maximum of 8 tablets in 24 hour period

#### **Non-Steroidal Anti-Inflammatory Drug (NSAID) (M01A XXX)**

Suggested: Ibuprofen 30 x 400 mg tablets

Indication: Mild to moderate pain and musculoskeletal inflammatory disorders

1 tablet every 6 hours.

#### **Codeine or dihydrocodeine tablets (N02A A08 or R05D A04)**

Suggested: Codeine or dihydrocodeine, 20 x 25-30mg tablets

Indication: Moderate to severe pain

1 x 25 or 30mg tablet every 4 to 6 hours when necessary

#### **Morphine injection (N02A A01)**

Suggested: Morphine, 5 x 10mg ampoules

Indication: Severe and acute pain

Patients should be closely monitored for pain relief as well as for side-effects especially respiratory depression.

It may be appropriate to consider the use of an antiemetic after administration of Morphine.

Other Opioids or Ketamine could be considered following a risk assessment by the companies Diving Medical Advisor.

## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

### ***Naloxone injection*** (V03A B15)

Suggested: Naloxone, 0.4mg/ml ampoules – 2 x 1ml

Indication: Opioid (morphine) overdose, respiratory depression due to administration of opioid (morphine) analgesia  
Respiratory depression is a major concern with opioid analgesics and it may be treated by artificial ventilation or be reversed by naloxone. Naloxone will immediately reverse opioid-induced respiratory depression but the dose may have to be repeated because of the short duration of action of naloxone; however, naloxone will also antagonise the analgesic effect

### ***NSAID injection*** (M01A B05)

Suggested: Diclofenac 4 x 75mg Ampoules

Indication: Severe and acute pain

Can be given IM or IV (as a continuous infusion according to pharmaceutical protocols)

### **Resuscitation Drugs (refer to the appropriate resuscitation guidelines)**

#### ***Adrenaline/Epinephrine injection*** (C01C A24)

Suggested: Adrenaline, 10 x 10ml ampoules. 100µg/ml ampoules (1 in 10,000)

Indication: Emergency treatment for cardiopulmonary resuscitation

Important: Intravenous route or intraosseous route to be used in resuscitation, during CPR only

#### ***Amiodarone injection*** (C01B D01)

Suggested: Amiodarone, 6 x 150mg ampoules

Indication: Amiodarone is used for the treatment of arrhythmias particularly during CPR

In some countries Amiodarone is sold as a powder – ensure the correct amount of the appropriate solute is included if this is the case

Important: Intravenous route or IO route to be used in resuscitation during CPR only

#### ***Furosemide injection*** (C03C A01)

Suggested: Furosemide, 5 x 40mg ampoules

Indication: Oedema, pulmonary oedema, resistant hypertension

#### ***Nausea, Vomiting and Diarrhoea Fentiazin or prochlorperazine injection (preferred) or oral (optional)*** (N05A B)

Suggested: Prochlorperazine, 5 x 25mg ampoules or Prochlorperazine, 20 x 5 mg tablets

Indication: Severe nausea, vomiting, vertigo, labyrinthine disorders (not for use in motion sickness)

Where available, prochlorperazine in 3mg buccal tablets (dissolves sublingually) is a good choice as opposed to the tablets as such as there is no need to swallow a tablet; 10 x 3mg tablets See notes on equipment to be held in HRU above.

#### **These are additional:**

##### ***Hyoscine hydrobromide (Scopolamine) tablets/dermal patches*** (A04A D01)

Suggested: Hyoscine, 40 x 300µg tablets (e.g. Kwells)

Indication: Short acting drug for sea sickness and hyperbaric evacuation. These tablets are chewable

Suggested: Scopolamine, 20 x dermal patches (e.g. Scopoderm plasters)

Indication: Long acting slow release drug for sea sickness and for hyperbaric evacuation. One patch to be placed behind one ear.

## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

### **Loperamide (A07D A03)**

Suggested: Imodium 100x30 mg tablets

Indication: Symptomatic treatment of diarrhoea. 1 tablet after each defecation. A minimum of 2 h should pass before next tablet.

### **Allergic Reactions**

#### **Antihistamine for injection (R06A B)**

Suggested: Chlorpheniramine, 2 x 10mg ampoules or dekschlorpheniramine, 2 x 5 mg ampoules

Indication: Symptomatic relief of allergy, urticaria, emergency treatment of anaphylactic reaction

#### **Oral antihistamine (R06A E)**

Suggested: [Cetirizine, 20 x 10mg tablets](#)

Indication: Symptomatic relief of allergies – non-sedating

There are different types of non-sedating oral antihistamines that can be substituted as needs be

#### **Corticosteroid for injection (H02A B)**

Suggested: Hydrocortisone 5 x 100mg ampoules

Indication: Hypersensitivity reaction e.g. anaphylaxis, angiodema, asthma

#### **Adrenaline/epinephrine autoinjector (C01C A24)**

Suggested: Epinephrine autoinjector (EpiPen autoinjector) 0.5mg of 1 in 1000 (1mg/ml) adrenaline (giving 500mcg) 2ml auto-injector

Indication: Emergency treatment of acute anaphylaxis

### **Drugs Various**

#### **Glucose injection (B05B A03)**

Suggested: Glucose 2 x 500mg/ml 50ml

Indication: Hypoglycaemia

#### **Glyceryl trinitrate sublingual tablets (C01D A02)**

Suggested: Glyceryl trinitrate sublingual tablets x 10 tablets

Indication: Cardiac chest pain

#### **Intravenous fluids (B05B B01)**

Suggested: Crystalloid Infusion – 6 litres

Sodium Chloride Infusion 0.9% and/or Hartman's or Ringers lactate.

Company doctor to advise on exact make up

#### **Antipsychotic drug for injection (N05A H03)**

Suggested: Olanzapine, 2 x 10mg

Indication: For relief of acute symptoms, schizophrenia and other psychoses, mania short-term adjunctive management of severe anxiety, psychomotor agitation, excitement, and violent or dangerously impulsive behaviour

#### **Anxiolytics for oral use (N05B A)**

Suggested: Diazepam, 10 x 5mg tablets

Indication: Short-term use in anxiety or insomnia, status epilepticus

## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

### Treatment of Burns

#### **Sulfonamides for topical use (skin) (D06B A01)**

Suggested: Silver sulphadiazine cream, 1 tube of 1%

Indication: for example, prophylaxis and treatment of infection in burn wounds, as an adjunct to short-term treatment of extensive abrasions; for conservative management of finger-tip injuries

### Antibiotics

#### **Broad spectrum antibiotic for parenteral administration (J01D D04)**

Suggested: Ceftriaxone 3 x 2g vials (1-2g once daily Intravenously or by deep intramuscular injection.)

Indication: For treatment of sepsis or other serious infections in patients unable to receive oral treatment.

#### **Broad spectrum antibiotics for oral use (J01C A, J01C F, J01C R02 or J01M A02)**

It is important to have antibiotics from both of the following 2 categories available on saturation diving projects.

1) Co-amoxiclav, 21 x 625mg tablets (1 tablet 3 times per day for 7 days) **OR** dicloxacilline 30 x 500 mg tablets

Indication: A broad spectrum antibiotic useful in the treatment of Gram-negative bacterial infections

If this drug is not available, the company doctor may choose to recommend a similar penicillinase resistant antibiotic.

2) A Quinolone, for example:

- Ciprofloxacin, 20 x 500mg tablets (1 tablet 2 times per day for 10 days) **OR**
- Levofloxacin, 20 x 500mg tablets (1 tablet 2 times per day for 10 days)

Indication: A Quinolone antibiotic is useful in the treatment of Pseudomonas infections

#### **Macrolide antibiotic for oral use (J01F A09, J01F A10)**

Suggested: Clarithromycin 14 x 250mg tablets (1 – 2 tablet(s) twice daily for 7 days) or Azithromycin 10 x 500mg tablets (1 tablet daily for 5 days)

Indication: Susceptible infections

#### **Antibiotic ear drops with (S03C A) or without (S02A A) corticosteroids**

Suggested: Sofradex (framycetin sulphate/ dexamethasone/gramicidin) ear drops or hydrocortisone/ polymyxine B ear drops one bottle 2–3 drops 3-4 times daily. May be substituted by other ear drops containing combinations of antibiotics (e.g. Polymyxine B, Neomycine, a.o.) and corticosteroid (hydrocortisone, dexamethasone a.o.)

Sofradex drops can also be used for eye infections

#### **Recommended additional antibiotic ear drops for saturation diving operations**

Suggested: Ciprofloxacin ear drops (S02A A15)

There should be a sensible supply of therapeutic ear drops as ear infections are common.

#### **Antibiotic eye drops/ointment (S01A A01)**

Suggested: Chloramphenicol eye drops or ointment

Indications: Eye infections **An antifungal drug**

Suggested: Clotrimazole cream (D01C A01)

Indications: For fungal skin infections

#### **An Antibacterial ointment**

Suggested: Bactroban / Bacitracin (D06A X05)

Indications: For skin infections





## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

Sr.	Description	Number Required
<b>DMAC REV.6.1</b>		
1	Torniquet - arterial (ea. CAT torniquet)	1
2	Torniquet - Extra	1
3	Polythene bags	3
4	Resuscitation Face Mask (e.g. Laerdal pocket mask)	1
5	Airway Oropharyngeal - Size: 3 & 4 (e.g. Guedel type)	1 each
6	Supraglottic Airways (IGEL) sizes 3, 4, 5 - Qty 3	1 each (3)
7	Tuf cut scissors	1
8	Medium dressing - 4" x 4"	1
9	Large dressing - 4" x 10"	1
10	Triangular Bandage	6
11	Roll of 1 inch adhesive tape	1
12	Crepe bandage - 3 inch	2
13	Hand operated suction pump (e.g. Vitalograph)	1
14	Watertight bag - Blue Bag (in Entry Lock)	1
15	Ameroid Sphymomanometer - Blood Pressure monitor	1
16	Yankauer wide-bore suction	1
17	Audlt adjustable cervical spine collar	1
18	Pairs - non sterile gloves (no-latex, if possible)	2 pairs
19	Pencil Torch Thermometer (electronic)	1
20	Stethoscope - for Entry Lock (Blue Bag)	1
21	Aneroid sphygmomanometer - blood pressure - complete	1
22	Reflex hammer	1 set1
23	Tape measure	1
24	Turning fork (1x128 Hz, & 1x256 Hz)	1 each
25	Pins for testing sensation (e.g. Neurotips)	1 pkt
26	Blood sugar testing strips (10) & Monitoring system - complete	1 set
27	Tongue depressors	20
28	Urine Testing Strips - (e.g MAKROMED - M10) - 1 pkt	1 set
29	Otoscope (with spare bulb, batteries, 3 x disposable ear pieces)	1
30	Thermometer sheaths - box of 100 - Qty 1	1 kit
31	Intercostal drain / trocar and drainage kit (e.g. Protex type)	2
32	IV Cannuel, large boar - 14g - Emergency Needles	0
33	Heimlich Valve	2
34	Device for Emergency Needle Thoracocentesis	4
35	Suitable Strapping / Fixing to secure the System	2
36	Urinary Catheters - Sizes: 16 & 18 (e.g. Foley Type)	1 each
37	Urine Collection Bags	2
38	Catheter spigots - optional	2



## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

Sr.	Description	Number Required
	<b>DMAC REV.5</b>	
39	20ml sterile water	2
40	Urethral anaesthetic gel - LATEX lubricant	0
41	Suitable Strapping / Fixing to secure the System	2
42	Packets Gauze squares 10 x 10 cm	10
43	Triangular Bandages	0
44	Packets Cotton Wool Balls	5
45	Triangular Bandages	4
46	Trauma Care Bandages	4
47	Safety Pins	12
48	Adhesive bandage 75mm x 3m	2
49	Adhesive bandage - 25mm x 3m	0
50	Adhesive bandage 25mm x 3m	2
51	Crepe bandage 6 inch	2
52	Crepe bandage 3 inch	2
53	Large dressing	2
54	Medium dressing	2
55	Adhesive Bandage Plaster (1 pkt or 40 pcs)	1 pkt
56	Dressing Bowls	2
57	Eye pads	4
58	Eye Wash Station (Kit)	1 kit
59	Wound Dressing - Soft Silicone Primary (8cm x 10cm) (e.g. Mepitel)	5
60	Splint - 36 inch (cut to size) - to immobilise fractured/sprained limbs (e.g. a Sam splint)	1
61	Canula Wound Dressing Transparant	10
62	Universal containers	4
63	Sachets skin disinfectant (e.g. Cetrimide solution)	6
64	Non-alcohol disinfectant wipes (Cetrimide) - Qty 10	10
65	Drapes - 60 x 90 cm	2
66	Gloves (selection of sizes - non-latex)	10 pairs
67	Sutures nylon (2/0), preferably with cutting needles att.	6
68	Sutures nylon (3/0), preferably with cutting needles att.	6
69	Sharps Bin (needle bin) - Medium Size	1
70	Resorbable sutures (2/0), preferably with needles att.	2
71	Resorbable sutures (3/0), preferably with needles att.	2
72	Syringes - 20ml	5
73	Syringes - 10ml	5
74	Syringes - 2ml / (3ml)	5
75	Needles - 18g (38mm)	10



## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

Sr.	Description	Number Required
<b>DMAC REV.6.1</b>		
76	Needles - 21g	10
77	Antiseptic Cream - Tube (e.g. Betadine)	0
78	Kidney dish	1
79	Bowl (Gallipot) - 60 - 100ml	1
80	Sachets skin disinfectant (e.g. Cetrimide solution)	10
81	Non-woven cotton swabs - 4 ply - 7.5cm	10
83	Dressing forceps	4
84	Dressing forceps (Extra)	1
85	Drapes - tissue backed - 60 X 90 cm	2
86	Bag - yellow (for disposal of used items)	1
87	Spencer Wells forceps - 5 inch	2
88	Mosquito forceps	1
89	Dressing forceps	1
90	Disposable scalpels	2
91	Forceps fine toothed (tweezers)	1
92	Dressing scissors	1
93	Scissors - fine pointed	1
94	Stainless steel ring cutter. Removal of rings etc. - non sterile	1
95	Giving sets	3
96	Intravenous (IV) Cannulae - 16g	4
97	Intravenous (IV) Cannulae 18g	4
98	Butterfly infusion sets 19g	4
99	Magnetic hooks	2
100	3-way IV taps	4
101	Intraosseous (IO) Infusion System	2 sets
102	IV Cannula Dressings - Qty 10	10
103	Pressure Infusion Bag - Qty 1	1
104	Resuscitator to include reservoir & connection for BIBS gas (e.g. Laerdal type) ①	1
105	Resuscitation masks with silicon face seals (varied sizes)	3
106	Pocket resuscitator with one-way valve (e.g. Laerdal pocket mask)	1
107	Supraglottic airways (adult size)	3
108	Endotracheal (ET) tubes (size 7,8 & 9) with catheter mounts & filters ⑤	1
109	Laryngoscope and batteries and spare bulb	1
110	ET Tube coupling and mount (for above scope)	1
111	Defibrillator - automated external (AED - black) ⑧	1 set
112	External Pads - stick on, cords + bag for above	1 pack
113	Oropharyngeal airway sizes 3 & 4. Guedel type	2
114	Suction kit, bag, 3 x tubes, pump, bottle	1 set



## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

Sr.	Description	Number Required
	<b>DMAC REV.6.1</b>	
115	Tourniquet - to aid venous access ONLY	1
116	Endotracheal suction catheters	2
117	Wide bore suckers	2
118	Nasopharyngeal airways (size 6 & 7 with flange)	2
119	Supraglottic Airways (IGEL) sizes 3, 4, 5 - Qty 3	
①	Resuscitators may require modification to gas inlet to ensure adequate filling at pressure	
⑤	Endotracheal tubes should be provided for use by doctors only	
⑧	Complete kit - in black bag - to be hanging in dive control - for readiness.	

### Following drugs are not included as per UAE law - NP = Not Permitted

Sr.	Description	Number Required
1	10ml Lignocaine 10 ml amps	0 (NP)
2	Aspirin tablets - soluble - 300mg / 500mg	20
3	Paracetamol Tabs - 500mg	25
4	Dihydrocodeine OR Codeine Tabs - 30mg	20
5	Morphine injection - 10mg	0 (NP)
6	Naloxone injection - ampoules - 1ml	2
7	Tramadol injection - ampoules - 100mg	0 (NP)
8	Adrenaline ampoule - 10ml	10 (NP)
9	Amiodarone ampoule - 150mg	6 (NP)
10	Furosemide ampoule - 40mg	0
11	Fentiazin or Prochlorperazine - 5 amps or 20 tablets	0
12	Antihistamine - ampoule 10mg (Chlorpheniramine)	0
13	Oral antihistamine - tablets - 10mg	20
14	Corticosteroid - ampoule - 100mg	5
15	Adrenaline (giving 300mg) 2ml Autoinjector / Epinephrine autoinjector 0.3mg of 1 in 1000 (1 mg/ml)	0 (NP)
16	100mg Hydrocortisone amps	0 (NP)
17	1ml Naloxone 0.4mg/ml amps	0 (NP)
18	150mg Amiodarone amps	0 (NP)
19	10mg Diazepam (rectal)	0 (NP)
20	Atropine injection - ampoule 1ml	0 (NP)
21	Glucose injection - 50 ml vials	2
22	Glyceryl Trinitrate tablets - sublingual - 0.5mg	0
23	Intravenous fluids - Crystalloid Infusion - litres	6 litres



## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

### Following drugs are not included as per UAE law - NP = Not Permitted

Sr.	Description	Number Required
24	Anxiolytics injection - ampoule - 10mg	0 (NP)
25	Anxiolytics for oral use - tablets 5mg	0 (NP)
26	Anxiolytics for rectal use - tablets 5mg	0 (NP)
27	Sulphonamides topical use - cream - tube	0
28	Broad spectrum, for oral use - 625mg	21
29	Marcrolide, for oral use - tablets - 250mg	14
30	Ear drops - Sofradex	3
31	Antifungal - Clotrimazole cream - tube	2

## SYNERGY INFRASTRUCTURE





# SYNERGY

INNOVATIVE DIVING EQUIPMENT TRADING LLC

INSPIRING • ENGINEERING • INNOVATION

## DMAC 15 REV 6.1 HYPERBARIC MEDICAL KIT

### Contact us



#### Synergy Innovative Diving Equipment Trading LLC

P.O. Box: 237849, Warehouse No.242, 29th street, Behind Al Huraiz Est, For Industry, Al Qusais, Industrial Area - 1, Dubai - U.A.E

+9714 2580533 / +971 50 564 8178  
ram@synergyequipment.com  
www.synergyequipment.com



#### Synergy Diving & Oilfield Equipments Trading LLC

P.O. Box: 2419, Office: 216, 2nd Floor, Dar Al Salaam Building Hamdan Street, Abu Dhabi - U.A.E

+971 50 564 8178 / +971 54 460 1492  
ram@synergyequipment.com  
unilok@synergyequipment.com  
www.synergyequipment.com



#### iSubC Diving Equipment Ltd

Units 10 Holly Close, Whitehills Business Park Westby With Plumpton, Blackpool, FY4 5QP, United Kingdom

+44 1253 767 788 / + 44 7951 966 260  
info@isubc.com  
www.isubc.com



#### Synergy Viking Offshore Engineering

Rabale Ttc Industrial Area Road no 20, Near Narayan dairy, Navi Mumbai, Thane - 400701, Maharashtra, India

+91 98218 90129  
ram@synergyequipment.com  
www.synergyviking.com



#### Synergy Group Azerbaijan

Gasaniyev, 14A  
Baku  
Azerbaijan

+99470 330 35 20  
infoazerbajian@synergyequipment.com  
www.synergyazerbajian.com



#### Synergy Singapore

Singapore



ISO 45001:2018 OHSMS

