

Resuscitation equipment

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1 Introduction

- 1.1 This policy gives guidance to personnel for the safe use and maintenance of the various resuscitation devices currently available in the Brigade.

Part 1 - Resuscitation protection pack (RPP)

1 Description

- 1.1 The resuscitation protection pack (RPP) is designed to fit into the fire tunic pocket and has an unlimited shelf life as long as the inner pack remains sealed and undamaged. All operational personnel are trained in resuscitation. The use of face shields will not alter the procedures.
- 1.2 The RPP is used when carrying out oral ventilations of a casualty, either mouth to mouth/nose or mouth to neck. The pack is for use when no other resuscitation equipment is available, e.g., resuscitator or pocket mask.
- 1.3 The contents of the RPP are as follows:
 - (a) User instructions and contents list.
 - (b) One face shield in a sealed pack. The shield is a small piece of plastic with a liquid breathing filter. This will provide a physical barrier between the user and the casualty.
 - (c) One large pair of disposable nitrile gloves.
 - (d) One clear unmarked sealable plastic bag.
 - (e) One sealable plastic bag marked with biohazard symbol and annotated clinical waste.

2 Method of use

- 2.1 The resuscitation face shield should be used as demonstrated during the IEC course, instructions are also included within the RPP. Open the RPP and put on the nitrile gloves before handling the casualty:
 - (a) Clear the airway of any obvious obstructions using an appropriate method as taught on the Trained First Aider Course.
 - (b) Open the sealed pack and remove the face shield.
 - (c) Place the face shield over the casualty's face so that the filter lies over the mouth or nose (the shield is reversible, so it does not matter which side is used when carrying out ventilation).
 - (d) When using a RPP with a patient fitted with a neck breather, place over the airway in the neck, normally covered by a gauze cravat.
- 2.2 Once resuscitation is complete or the casualty has been handed over to the ambulance service, place the gloves and face shield into the unmarked sealable plastic bag for disposal (this should have been kept in the fire tunic pocket during resuscitation) in the following way:
 - (a) If possible, wash off gloves in water before removal. During this process, try to avoid exposure to the water run-off.
 - (b) Remove the gloves by the cuff, turning them inside out.
 - (c) Place the used gloves and face shield into the yellow clinical waste bag.

- (d) Disposal of clinical waste.
- (e) If the ambulance service are in attendance, hand the bag to them.
- (f) If they have left the scene, take the bag to the nearest London ambulance station or hospital for disposal. The sealed bag is to be placed in the galvanised bucket of the appliance when transporting clinical waste.

3 Allocation

- 3.1 The RPP is a personal issue to all operational personnel. The items within the RPP are designed for single use only and are to be disposed of after use. The contents of the pack should be replaced at the earliest opportunity.
- 3.2 If only the nitrile medical examination gloves have been used, they are to be replaced from station stock.
- 3.3 Replacement yellow clinical waste bags are available from POMS.

Part 2 – Oxygen supply

1 Introduction

- 1.1 This section provides information about the ZD integral valve cylinder and its associated hoses, bag and valves and masks.

2 Description

- 2.1 The ZD Integral valve cylinder is a self-contained oxygen set that consists of a 2-litre cylinder which holds 600 litres of compressed oxygen. Permanently attached to the cylinder are a pressure gauge, flow selector and on/off hand wheel. Its component parts comply with BS 5682, BS 341 and ISO 5145.

Masks

- 2.2 There are two bag valve masks (BVM's), Fig.2.1 in each IEC pack, one adult and one paediatric. Both have anti-kink tubing. These masks are for use with any patient who needs assistance with their breathing. These are single use only and must be disposed of as clinical waste.
- 2.3 The high concentration non-rebreathing oxygen masks in the pack (Fig. 2.2) are for patients who are able to breath unassisted and will deliver 95-98% of oxygen, depending on the fit of the mask. There are four of these masks in each IEC pack, two adult and two paediatric. These do not have anti-kink tubing. Before placing on the patient's face, the reservoir bag must be allowed to inflate.



BVM – Fig. 2.1



HCOM – Fig. 2.2

3 Oxygen cylinder

- 3.1 The cylinder is constructed from aluminium alloy and is wrapped in a carbon fibre hoop. The components of the cylinder comply with British Standards BS5682, BS341 and ISO5145.
- 3.2 The cylinder has a water capacity of 2 litres, weighs 4.06 kg and is filled with, approximately, 600 litres of Oxygen compressed to 300 bar.
- 3.3 Approximate duration of use is 40 minutes at 15 litres per minute.
- 3.4 Each cylinder is fitted with a firtree outlet for connecting to hoses and has an integral regulator and contents gauge.
- 3.5 Cylinders can be carried at an incident within the IEC pack or by using a dedicated carrying handle.
- 3.6 The cylinder contents is easily identified by clearly defined markings.



Fig. 2.3 - ZD Cylinder Connector

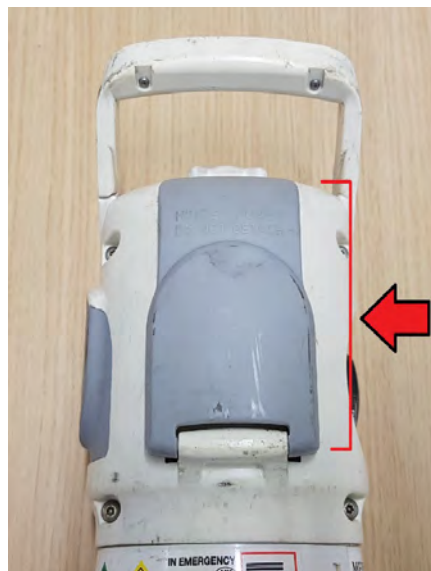


Fig. 2.4 - ZD cylinder outlet cover



Fig. 2.5 - "Fir tree" connector



Fig. 2.6 - A "live" pressure gauge gives constant content level readings regardless of whether or not the cylinder is switched on.



Fig. 2.7 – An easy to use on/off hand wheel.

4 Allocation

- 4.1 ZD integral cylinders are part of the IEC pack inventory and are assigned to all pumping appliances, FRU's, rapid response vehicles, the fire boat and all aerial appliances.

5 Changing the oxygen cylinder

- 5.1 On -scene ambulance crews are able to exchange cylinders on a 'one for one' basis only. If there is no ambulance on scene, or exchange cylinders are unavailable, then cylinders may be exchanged at ambulance stations, on a one-to-one basis only. No spares cylinders should be held at station. For exchange locations, see Appendix 1.

6 Preparing for use

- 6.1 On receipt of a new cylinder, it may be necessary to remove a "tamper evident hand wheel cover" (grey) in order to be able to turn on the cylinder using the easy on off wheel.

7 Care, maintenance and cleaning

- 7.1 To reduce the risk of cross contamination to and from patients, all IEC oxygen equipment should be stored within its sterile packaging until needed for use. All oxygen equipment, except the cylinder, is single-use only and must be disposed of as clinical waste.
- 7.2 For normal cleaning, the ZD oxygen cylinder can be wiped clean with PALTECH multi-surface antibacterial wipes. If the cylinder is contaminated, the on-scene ambulance crew can give advice as to the most appropriate method for cleaning. If in doubt, request an exchange cylinder from the ambulance crew who will exchange if their on-board stock permits.

Appendix 1 – Stations at which oxygen cylinders may be exchanged

Barnehurst	Greenwich	New Maldon	St. Helier
Barnet	Hanwell	Newham	St. Johns Wood
Becontree	Heathrow	Oval	Streatham
Bloomsbury	Hillingdon	Pinner	Tottenham
Brent	Homerton	Poplar	Waterloo
Bromley	Ilford	Richmond	West Ham
Camden	Isleworth	Romford	Westminster
Croydon	Islington	Shoreditch	Whipps Cross
Deptford	Kenton	Silvertown	Wimbledon
Edmonton	Mill Hill	Smithfield	
Fulham	New Addington	South Croydon	

Document history

Assessments

An equality, sustainability or health, safety and welfare impact assessment and/or a risk assessment was last completed on:

EIA	09/10/2007	SDIA		HSWIA	07/12/2018	RA	
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Audit trail

Listed below is a brief audit trail, detailing amendments made to this policy/procedure.

Page/para nos.	Brief description of change	Date
Throughout	Reviewed as current. No content changes made.	21/06/2007
Page 1	Changed Responsible Work Team to Protective Equipment Group.	11/07/2012
Throughout	This policy has undergone major changes, please read to re-familiarise yourself them.	15/08/2012
Page 11 para 10.1	Text removed from the end of paragraph 10.1 '(except FRUs which have a separate microvent)'.	17/09/2013
Page 33	Subject list and FOIA exemptions tables updated.	18/11/2014
Throughout	Part 4 deleted and all references to the Microvent removed following its withdrawal from service	12/05/2015
Part 6 and appendix 2 & 3	Part 6 and appendix 2 & 3 deleted and all references to the Res-Q-vac removed as this equipment is no longer in service	23/07/2015
Throughout	Reviewed as current with no changes.	05/01/2016
Throughout	This policy has been reviewed as current with major changes made. Please re-read the content to familiarise yourself.	19/12/2018
Throughout	This policy has been reviewed as current with minor changes made. Please re-read the content to familiarise yourself.	26/05/2023

Subject list

You can find this policy under the following subjects.

Equipment – rescue	First aid
IEC	ZD cylinder
Medical	

Freedom of Information Act exemptions

This policy/procedure has been securely marked due to:

Considered by: (responsible work team)	FOIA exemption	Security marking classification