



London Ambulance Service **NHS**
NHS Trust

**Procedure for the Scheduled Maintenance and Exchange of
Ambulance Equipment**

DOCUMENT PROFILE and CONTROL.

Purpose of the document: is to ensure that equipment is maintained and repaired within set guidelines.

Sponsor Department: Operational Support

Author/Reviewer: Logistics Manager. To be reviewed by July 2013.

Document Status: Final

Amendment History			
Date	*Version	Author/Contributor	Amendment Details
29/07/10	1.7	Corporate Logistics Manager & Head of Records	S.2 Scope amended and monitoring section revised.
27/04/10	1.6	Corporate Logistics Manager	Revision
21/04/10	1.5	Head of Records	Revision including S.10
18/04/10	1.4	Corporate Logistics Manager	Revision: new Appendix 1 added.
12/04/10	1.3	Head of Records	Revision
31/03/10	1.2	Corporate Logistics Manager	Revised document
22/09/08	1.1	Head of Operational Support	monitoring duties added

***Version Control Note:** All documents in development are indicated by minor versions i.e. 0.1; 0.2 etc. The first version of a document to be approved for release is given major version 1.0. Upon review the first version of a revised document is given the designation 1.1, the second 1.2 etc. until the revised version is approved, whereupon it becomes version 2.0. The system continues in numerical order each time a document is reviewed and approved.

For Approval By:	Date Approved	Version
VEWG	30/07/10	2.0
Chief Executive	01/10/07	1.0
Ratified by:		

Published on:	Date	By	Dept
The Pulse	08/10/10	Governance Administrator	GCT
Announced on:	Date	By	Dept
The RIB	10/10	Governance Administrator	GCT

EqIA completed on	By
17/06/10	Logistics EQIA team
Staffside reviewed on	By

Links to Related documents or references providing additional information		
Ref. No.	Title	Version
	Medical Devices Agency Bulletin MDA 9801(now known as Medicine & Healthcare Products Regulatory Agency – MHPRA)	
	NHS Executive Controls Assurances Standard.	
	Standard Operating Procedures for Logistics Support Unit Staff	

Document Status: This is a controlled record as are the document(s) to which it relates. Whilst all or any part of it may be printed, the electronic version maintained in P&P-File remains the controlled master copy. Any printed copies are not controlled nor substantive.

1. Introduction

This procedure was introduced following the implementation of the Equipment Exchange Scheme (EES) in 2002 to ensure all operational staff were informed of the new process for exchanging faulty equipment. The EES provides the mechanism to exchange and repair faulty equipment at a central point, the Logistics Support Unit.

In addition to ensuring that equipment is promptly repaired in accordance with manufacturer's recommendations this procedure covers the maintenance of equipment used in the treatment of patients in accordance with manufacturer's schedules.

In addition to the content of this procedure, Standard Operating Procedures (SOPs) are in place to guide Equipment Support Personnel and Warehouse Supervisors when dealing with equipment failures. These procedures are available from the Logistics Department.

2. Scope

This procedure covers the maintenance and exchange of the equipment listed at Appendix 1. It does not cover any of the other reusable ambulance equipment as listed in Appendix 2 of OP/026. It applies to all operational staff and managers of the London Ambulance Accident & Emergency Service, Patient Transport Service (PTS), Emergency Operations Centre, PTS Site Controls and Equipment Support Personnel, and Warehouse Supervisors.

3. Objectives

1. To ensure isolation of faulty equipment to prevent its accidental reintroduction into service before repair, so as to protect patients from accidental use of faulty equipment or the risk of cross-infection.
2. To facilitate critical equipment exchange within a twenty-four hour period so as to ensure continuity of resources.
3. To comply with Medicine and Healthcare Products Regulatory Agency (MHPRA) bulletin MDA 9801 in isolating faulty equipment.
4. To ensure that equipment sent for service or repair is disinfected before despatch in compliance with section 20 of the Infection Control procedures to comply with guidelines from the MHPRA. This is also a requirement under Criterion 16 of the National Health Service Executive Controls Assurance Standard.
5. To ensure equipment is maintained in accordance with manufacturer's recommendations and servicing schedules.

Ref. No. OP/025	Title: Scheduled Maintenance & Exchange of Ambulance Equipment	Page 4 of 12
-----------------	--	--------------

6. To comply with regulations from the MHPRA in respect of reporting adverse incidents, and enabling the maintenance of records involving the history of all medical devices as required by that Agency.

4. Responsibilities

- 4.1 The responsibility for ensuring that the procedure is enforced lies with the Trust Board and the Chief Executive Officer.
- 4.2 All Operational Managers are responsible for ensuring that this procedure is being adhered to at station level.
- 4.3 All staff sending faulty equipment for repair are responsible for the disinfecting of equipment and completion of the Equipment Repair tag before placing it in the faulty equipment box.
- 4.4 It is the responsibility of the Corporate Logistics Manager, Logistics Manager (Supply and Material Management) and Warehouse Supervisors to ensure that Equipment Support Personnel adhere to the contents of this procedure.
- 4.5 It is the responsibility of the Logistics department to ensure that equipment is repaired in accordance with manufacturer's recommendations.
- 4.6 It is the responsibility of the Logistics Department to facilitate the scheduled maintenance of equipment where required.
- 4.7 It is the responsibility of all complex management teams to ensure that equipment is released for scheduled maintenance as requested by the Logistics Support Unit or Maintenance Contractors.

5. Documentation

- 5.1 This procedure will introduce two equipment tags, one Equipment Exchange Record LA105 (see Appendix 2) and station whiteboards into usage as follows:
 - **The Equipment Repair Tag** in three parts with self-carbonating copies. The bottom (Red) and middle (Yellow) sections will remain on the item to indicate that it is unserviceable whilst the remaining white copy will be forwarded to the main station for retention.
 - **The Equipment Issue Tag** in three parts with self-carbonating copies is to be attached to all serviceable equipment with the first three boxes completed before leaving the equipment store. The person responsible for exchanging the equipment at the point of exchange will complete the remainder of the tag. Both the top (white) and second (yellow) copies will be removed by

the Equipment Personnel and attached to the relevant equipment exchange record.

- **Equipment Exchange Record (LA105)** which will be completed and returned with the equipment to the Equipment Exchange store by the member of Equipment Support Personnel who exchanges the unit.
- **The Station Whiteboard** is for use by ambulance staff for recording both faulty equipment and equipment left at hospital.

5.2 Throughout the procedure the colour **Red**, (tags and receptacles) will be used to indicate faulty equipment or items in need of service. The colour **Green** (tags and receptacles) will indicate items that are fully serviceable.

6. Actions by Operational A&E and PTS staff at Commencement of Shift

6.1 **At the commencement of each shift** the attendant will ensure that the serial numbers, physical presence and serviceability of items identified on the front of the LA1/ PTS 1 are recorded in the appropriate box. The only exception to this is where the vehicle and crew are required to attend a call before completing the check. In this case this responsibility will be complied with at the earliest practicable time, normally on completion of the call.

6.2 Crews reporting for duty should also check the Equipment Record Whiteboard for indication of returned equipment and in addition a visual check of the contents of the green serviceable unit receptacle should be made in case any relevant entry has been inadvertently deleted.

6.3 When the serviceable equipment is put into operational use the green issue tag is to be removed.

7. Actions by A&E / PTS staff in the Event of Equipment Failure

- Attendant will advise EOC / Site control and act upon their instructions.
- The faulty item must be disinfected whether or not it has been used on a known infectious/contagious case.
- A fully completed “Faulty Equipment Label” must be securely attached by the cord provided or by other suitable means, ensuring that all three parts of the label are legible,

Ref. No. OP/025	Title: Scheduled Maintenance & Exchange of Ambulance Equipment	Page 6 of 12
-----------------	--	--------------

- The top copy will be removed and should be forwarded to the main station for retention.
- The faulty unit will then be placed in the **RED** receptacle provided and a message entered on the “Equipment Record” whiteboard for the information of oncoming crews. It is vital that **ONLY** the **Red** section of the tag is on the unit when it is placed in the receptacle.

7.1 Crews are reminded of the exceptional importance of identifying equipment that has “failed in use”, and that it is mandatory that an LA52 is completed and a photo copy forwarded with the unit in question. The Faulty Equipment Label should also be annotated to indicate that an LA52 has been completed. If it is not feasible to forward the LA52 with the faulty item immediately, the main station should ensure a copy is sent to the Logistics Support Unit as soon as possible by fax.

7.2 Should a replacement be available on station for immediate exchange this is to be utilised and an appropriate note made to that effect on the whiteboard and the LA1 /PTS 1.

7.3 Crews are to comply with instructions from EOC / Site control should an exchange unit not be immediately available.

8. Action by Equipment Exchange Personnel on Station (Also to be adopted by any Other Person, e.g. Team Leader, Exchanging Equipment)

8.1 Where an item has been found to be faulty the member of Equipment Exchange Personnel is to ensure that details are entered fully and completely as far as is possible before uplifting the item, in particular the section regarding disinfection. If the item has not been disinfected a note will be made on the drivers log sheet and the item will be left in the faulty equipment box. Staff must then fully complete the Equipment Exchange Record (LA105) for equipment being returned to the Logistic Support Unit, and update the crews' entry on the “Equipment Record Whiteboard”. Subject to the member of Equipment Exchange Personnel having a suitable replacement this must be placed in the **GREEN** Receptacle provided.

8.2 In the event of no suitable replacement being available immediately, he/she will return the item to the Logistic Support Unit for inspection/repair and/or replacement Priority will then be given to exchanging this unit at the earliest opportunity.

9. Equipment to be Exchanged

9.1 The following items will be exchanged on a one for one basis:

Ref. No. OP/025	Title: Scheduled Maintenance & Exchange of Ambulance Equipment	Page 7 of 12
-----------------	--	--------------

- L Shaped Regulator
- Glass Flow Meter

9.2 The following items will be taken for repair, and a replacement will be provided (if available) if the item cannot be repaired and returned to Service within 24 hours

- Laerdal FR2 Defibrillator
- Welch Allyn Propaq Monitor
- Medtronic Lifepak 12 defibrillator
- Lifepak 12 accessories
- Medtronic Lifepak 15 defibrillator
- Lifepak 15 accessories
- Lifepak 1000 defibrillator
- Lifepak 1000 accessories
- Laerdal Suction unit (yellow type)
- Laerdal Suction unit (blue cased)
- Oxytitre Regulator (Entonox)
- Microvent regulator (BNOS)

9.3 All items of equipment returned to the Logistic Support Unit will be inspected, tested and repaired in line with the manufacturer's instructions and training. Items will then either be returned to stock, returned to station or sent to a contracted repairer where it will be repaired and recalibrated in accordance with manufacturer's recommendations.

It is important that all equipment returned has its full complement of accessories with it, to enable a full and precise test to be completed. Maintenance and repair of all medical devices will be carried out in accordance with Service/ Manufacturers requirements. These requirements are communicated to all contractors/ staff responsible for ensuring the maintenance and repair of equipment. Service records are held at the Logistics Support Unit and / or the Logistics Departmental Office.

10. Scheduled Maintenance

10.1 Scheduled maintenance will be undertaken by approved contractors in accordance with manufacturer's recommendations and guidelines. This will include recalibration of equipment, function tests and scheduled servicing where appropriate. This process will be facilitated by the

Ref. No. OP/025	Title: Scheduled Maintenance & Exchange of Ambulance Equipment	Page 8 of 12
-----------------	--	--------------

Logistics Support Unit and will be undertaken either at the Logistics Support Unit or ambulance stations. Station management teams will be informed of pending service visits and must ensure equipment is made available for maintenance.

- 10.2 Logistics will maintain a list of all individual items of equipment which will be maintained/ recalibrated according to the schedule at Appendix 1. Maintenance contractors will provide details of all equipment serviced on their visits and this information will be used by Logistics to identify any items missed. These items will then be recalled to the Logistics Support Unit for servicing/ recalibration within the approved timetables specified in Appendix 1.

Implementation Plan

IMPLEMENTATION PLAN	
Intended Audience	For all operational LAS staff, managers and staff working within the Logistics Department.
Dissemination	Available to all staff on the Pulse
Communications	Revised Procedure to be announced in the RIB and a link provided to the document
Training	Forms part of the training for new Equipment Support Personnel and Warehouse Supervisors within the Logistics Department.
Monitoring	<p>The scheduled maintenance and recalibration of the equipment listed in Appendix 1 will be monitored under the scope of this procedure.</p> <p>Equipment maintenance and calibration will be monitored using information provided by the contractors undertaking the annual servicing and recalibration of equipment. This will be stored on equipment record spreadsheets held by the Logistics Support Unit. Records for defibrillation equipment will be checked following the annual servicing to check that all equipment has been serviced and recalibrated as required by the manufacturers. Records for all other equipment listed at Appendix 1 will checked on a monthly basis to ensure that all equipment is serviced and recalibrated annually.</p> <p>Monitoring of equipment maintenance will be the joint responsibility of the servicing contractors and the Managers and Warehouse Supervisors of the Logistics Support Unit. All monitoring will be undertaken in conjunction with the Trusts appointed maintenance contractors.</p> <p>The monitoring results will be reported to the A&E Vehicle & Equipment Working Group. The outcomes and recommendations from this will be monitored by the Finance and Business Investment including Risk Group.</p>

Appendix 1

Equipment Maintenance Schedule

Equipment Item	Servicing Schedule	Recalibration Required
L Shaped Regulator	Annual	Yes
Glass Flow Meter	Annual	Yes
Laerdal FR2 Defibrillator	None required	No
Medtronic Lifepak 12 Defibrillator	Annual	Yes
Lifepak 12 Accessories	None required	No
Medtronic Lifepak 15 Defibrillator	Annual	Yes
Lifepak 15 Accessories	None required	No
Lifepak 1000 Defibrillator	None required	No
Lifepak 1000 Accessories	None required	No
Laerdal Suction Unit (yellow casing)	Annual	Yes
Laerdal Suction Unit (blue case)	Annual	Yes
Oxylitre Regulator (entonox)	Annual	Yes
Microvent Regulator (BNOS)	Annual	Yes

LA105

IMMEDIATE EQUIPMENT EXCHANGE RECORD

DATE:		STATION:		ROUTE NO:		Red	<input type="checkbox"/>	Green	<input type="checkbox"/>
-------	--	----------	--	-----------	--	-----	--------------------------	-------	--------------------------

exchange boxes present

Defibrillators

- D710
- D710 Charging Lead
- Heartstart
- FR2
- Lifepak 12

Regulators

- Oxylitre
- BNOS
- Pneu Pac
- L-Shaped
- Sabre
- Glass Flow Meter

Pulse Oximeters

- Criticare Pulse Ox.
- Finger Probe
- Charging Lead

Resuscitator

- Pneu Pac Yellow Box
- BNOS Resuscitator

Suction Units

- Laerdal Unit
- Charging Lead

Entonox

- Ohmeda
- Oxylitre

Fault

LA 52 ATTACHED? YES / NO

IF YES: LA52 NO.

MANUFACTURERS SERIAL NO:

LAS SERIAL NO:

REPAIR TAG NO:

EQUIPMENT EXCHANGE PERSONNEL

Name (please print)

Signature

