London Ambulance Service 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: Fleet and Logistics

Author/Reviewer: Logistics Manager. To be reviewed by May 2017

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Amendment History			
Date	*Version	Author/Contributor	Amendment Details
05/12/16	3.3	IG Manager	Formatting and Document Profile and Control update
23/11/16	3.2	Performance Improvement Manager – Fleet and Logistics	Revision
09/10/12	3.1	IG Manager	Document Profile and Control update
27/09/12	2.5	Assistant Director Fleet & Logistics	Related documents added and minor amendments for clarity
06/09/12	2.4	IG Manager	Document Profile & Control update.
30/08/12	2.3	Performance improvement Manager - Fleet and Logistics	Minor amendments to section 5 and monitoring information
20/06/12	2.2	Logistics Manager for Contingency Planning & Governance	Reformatted – updated monitoring section, minor amendments to sections 4, 5 and 10.
10/05/12	2.1	Logistics Manager for Contingency Planning & Governance	Addition of monitoring table, and to section 4 and 9.3. Amendments to sections 8.1, 9.2, 10.2, and 11
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.

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Links to Related documents or references providing additional information		
Ref. No.	**Title**	**Version**
	Medical Devices Agency Bulletin MDA 9801 (now known as Medicines & Healthcare products Regulatory Agency – MHRA)	
	NHS Executive Controls Assurances Standard.	
	Local procedures for Logistics Support Unit staff	
OP026	Procedure for Vehicle Equipment Use and Inventory Checks	
HS011	Incident Reporting Procedure	

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 manufacturers' schedules.

In addition to the content of this procedure, procedures 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 consumable ambulance equipment as listed in Appendix 3 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

- 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.
- To facilitate critical equipment exchange within a twenty-four hour period so as to ensure continuity of resources.
- To comply with Medicines and Healthcare products Regulatory Agency (MHRA) guidance for managing medical devices 2015.
- To ensure that equipment sent for service or repair is disinfected before despatch to comply with guidelines from the MHRA.
- To ensure equipment is maintained in accordance with manufacturers' recommendations and servicing schedules.

4. Responsibilities

a. The responsibility for ensuring that the procedure is enforced lies with the Trust Board and the Chief Executive Officer.

b. All Operational Managers are responsible for ensuring that this procedure is being adhered to at station level.

c. 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.

d. 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.

e. It is the responsibility of the Logistics Department to ensure that equipment is repaired in accordance with manufacturer's recommendations.

f. It is the responsibility of the Logistics Department to facilitate the scheduled maintenance of equipment where required.

g. 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.

h. It is the responsibility of the LAS Contract Manager - Vehicle Preparation Services to ensure that Vehicle Preparation Staff follow this procedure upon finding a piece of faulty equipment that is covered by this procedure.

i. It is the responsibility of the LAS Contract Manager - Vehicle Preparation Services to ensure that Vehicle Preparation staff bar code and scan all applicable items of equipment on to the asset database.

j. The Clinical Equipment Working Group monitors results of the annual servicing check and monitor outcomes and recommendations.

5. Documentation

5.1 The organisation will maintain a database of diagnostic and therapeutic equipment via an asset tracking system populated by the Vehicle Preparation contractors. Equipment will be bar coded and scanned. Logistics will have access to the database for monitoring and checking purposes. This procedure introduces two equipment tags, one Equipment Exchange Record LA105 (see Appendix 2) and station whiteboards into usage as follows:

- **The Equipment Repair Tag** in two parts with self-carbonating copies. The bottom (Red) section 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 two 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. The top (white) copy 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.

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 CSU / 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 parts of the label are legible.
- 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 is registered on Datix. The Faulty Equipment Label should also be annotated to indicate that a Datix IDNO has been completed.

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 LA1 /PTS 1.

7.3 Crews are to comply with instructions from CSU / 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 on the Eq Rep Tag. 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.

8.2 Staff must then fully complete the Equipment Exchange Record (LA105) for equipment being returned to the Logistic Support Unit.

8.3 Subject to the member of Equipment Exchange Personnel having a suitable replacement, this should be noted and placed in the **GREEN** Receptacle provided.

8.4 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 be given to exchanging this unit at the earliest opportunity.

9 Equipment to be Exchanged

9.1 The following items are included with this policy:

9.1.1 L Shaped Regulator

9.1.2 Glass Flow Meter

9.1.3 Medtronic Lifepak 15 defibrillator

9.1.4 Lifepak 15 accessories

9.1.5 Lifepak 1000 defibrillator

9.1.6 Lifepak 1000 accessories

9.1.7 Laerdal Suction unit (yellow type)

9.1.8 Oxylitre Regulator (Entonox)

9.1.9 Microvent regulator (BNOS)

9.3 All items of equipment returned to the Logistic Support Unit will be recorded on the equipment database and 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 on the Equipment Database stored on the X Drive.

10 Scheduled Maintenance

10.1 Reusable diagnostic and therapeutic equipment is maintained and repaired by approved contractors in accordance with manufacturer's recommendations and guidelines. This includes recalibration of equipment, function tests and scheduled servicing where appropriate. This process is facilitated by the Logistics Support Unit

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

10.2 A database of all individual items of equipment which are maintained/ recalibrated according to the schedule in Appendix 1 and maintained by the Vehicle Preparation contractors and can be updated/ viewed by staff working at the Logistics Support Unit. Maintenance contractors provide details of all equipment serviced on their visits and this information will be placed on the database and can 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	
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:

Aspect to be monitored	Frequency of monitoring AND Tool used	Individual/ team responsible for carrying out monitoring AND Committee/ group where results are reported	Committee/ group responsible for monitoring outcomes/ recommendations	How learning will take place
Duties (Section 4)	Quarterly audit of system (servicing and recalibration) and equipment record spreadsheets held by the Logistics Support Unit. Records for defibrillation equipment checked following the annual servicing. Spot checks on items of equipment to ensure correct procedure followed. Records for all other equipment checked on a monthly basis to ensure that all equipment is serviced and recalibrated annually.	ADO's report to the Area Quality Meetings	Clinical Quality Safety and Effectiveness Committee	Learning disseminated via the Clinical Equipment Group
How the organisation includes all items of diagnostic and therapeutic equipment on an inventory (Section 5)		The Corporate Logistics Manager will report to the Clinical Equipment Group		
How reusable diagnostic and therapeutic equipment is maintained (Section10)				
How reusable diagnostic and therapeutic equipment is repaired (Section 6-9, Appendix 1)				

Appendix 1

Equipment Maintenance Schedule

Equipment Item	Servicing Schedule	Recalibration Required
L Shaped Regulator	Annual	Yes
Glass Flow Meter	Annual	Yes
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
Oxylitre Regulator (entonox)	Annual	Yes
Microvent Regulator (BNOS)	Annual	Yes
Mangar Elk	Annual	No (LOLER test required)

Appendix 2

LA105

IMMEDIATE **EQUIPMENT EXCHANGE RECORD**

DATE:		STATION:		ROUTE NO:		exchange boxes present Red		Green	

Defibrillators

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

Regulators

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

Pulse Oximeter

- ☐ Criticare Pulse Ox.
- ☐ Finger Probe
- ☐ Charging Lead

- ☐ 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)