

E&F Management of Medical Gases Pipeline Supplies Policy (MGPS)

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Purpose:	To give guidance and assurance of the safe delivery of piped medical gas supplies
Consultation:	Estates and Facilities Department.
Approved by:	BEME
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Author:	
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Version History

Versio	Date	Reason for Change
1	Sept 2015	Draft document issued for comment/approval
2	Nov 2017	Minor job title revision
3	Sept 2018	Review
4	Oct 2020	Conversion to GHC
5	Jan 2024	Reviewed
6	June 2025	Reviewed

Executive Summary:

Gloucestershire Health & Care NHS Foundation Trust (Hereafter known as GHC) provides a wide range of health-related services to the people in and around Gloucestershire. The Trust recognises its duties and legal responsibilities to ensure, as far as reasonably practicable, the health, safety and welfare of its employee's and other people who may be affected by its activities and its duty to the environment in which it operates. This policy document describes the Trust's arrangements for discharge of these responsibilities.

This document sets out the commitment of GHC to protect the health, safety and wellbeing of any employees, patients, visitors and contractors engaged in any work or the use of piped medical gas supplies. This document also applies to all construction, building and engineering works, developments, refurbishment and maintenance works carried out by employees and contractors.

This Policy will ensure compliance with the *Health Technical Memorandum, 02-01 parts A and B: Medical Gas Pipeline Systems*.

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1. Introduction

Medical gas is single or mixed gases supplied centrally by medical piping systems for the treatment, diagnosis, or prevention of patients' diseases, or for driving surgical tools and instruments, etc. In applications they also include medical vacuums and gases used for medical experiments and bacterial and embryonic cultures, etc. The most common types of medical gases are oxygen, air, vacuum, nitrous oxide, carbon dioxide, anaesthetic gases, nitrogen, etc. Medical gases are used in a variety of environments, including hospital operating rooms, emergency rooms, intensive care units, ambulances, and clinics.

2. Purpose

The purpose of this policy is to show how GHC will meet compliance with the Management of Medical Gases Pipeline Supplies (hereafter known as MGPS) fulfilling its statutory duties under *Health and Safety at Work Act (HASAWA) 1974* and *Management of Health and Safety (MHSWR) 1999 Regulations*.

3. Scope

This policy will apply to all staff and contractors who use or work with medical gas pipeline supplies.

4. Duties

Chief Executive (Duty Holder)

The Chief Executive is responsible to the Trust Board for MGPS and has delegated responsibility to the Director of Finance to ensure that the objectives set in this policy are attained and that any associated procedures are complied with.

Director of Finance

The Director of Finance is responsible for implementation and provisions of resource for this policy. The overall management of MGPS has been delegated to the Associate Director of Estates, Facilities and Medical Equipment.

Associate Director of Estates, Facilities and Medical Equipment

The Associate Director of Estates, Facilities and Medical Equipment has the responsibility to provide the resources to effectively manage and maintain MGPS. Further responsibilities are to provide and appoint an adequately trained Authorised Engineer (AE).

Designated Accountable Officer for Drugs

The Chief Pharmacist is the Designated Accountable Officer for drugs with the responsibility for:

- Chair of Medical Gas Group
- Ensure systems in place to assure the supply, quality, continuity and safety of medical gases within the Trust
- Safe and secure handling of medical gases within the Trust
- Action medical gas alerts

The Designated Officer

The Designated Officer is the most senior person in each Department whom the AP will liaise with on any matter affecting the medical gases, including providing permissions on planned interruptions to supply. The Designated Officer is responsible for:

- Apply the requirements of this policy for the circumstances leading to permissions
- Sign appropriate parts of the permit to work
- Ensuring staff awareness of interruptions
- Focal point for special requirements and emergencies
- Receive appropriate training relevant to their department and include specific training in emergencies.

Authorised Engineer (AE)

The Authorising engineer (MGPS) shall be a suitably qualified independent and experienced Chartered Engineer. The duties and responsibilities of the Authorising Engineer (MGPS) are:

- to recommend to the Executive Manager those persons who, through individual assessment, are suitable to be AP (MGPS);
- to ensure that all AP (MGPS) have satisfactorily completed an appropriate training course;
- to ensure that all AP (MGPS) are re-assessed every three years and have attended a refresher or other training course before such re-assessment;
- to review the management systems of the MGPS, including the permit-to-work system;
- to monitor the implementation of the operational policy and procedures.

Senior Estates Manager

The Senior Estates Manager will provide adequately trained staff to act as authorised persons (AP) to effectively manage the day-to-day requirements of MGPS. Further responsibilities are to ensure this policy is written, implemented and reviewed at stated dates.

Authorised Persons (APs)

Authorised Persons are members of the Estates Management Team with the appropriate training in Authorised Person (MGPS). The authorised person will be appointed by the Chief Executive (Duty Holder) on the approval of the AE.

Competent Persons

All Competent Persons (MGPS) are suitably qualified and experienced trades persons, employed directly by the Trust and/or nominated and approved contractors. All Competent Persons (MGPS) shall be registered to BS EN ISO 9001/BS EN ISO 13458, with clearly defined registration criteria. The duties and responsibilities of Competent Persons (MGPS) are:

- to carry out work on the MGPS in accordance with the [premises]'s maintenance specification;
- to carry out repair, alteration or extension work as directed by an Authorised Person (MGPS) in accordance with the permit-to-work system and Health Technical Memorandum 02-01;
- to perform engineering tests appropriate to all work carried out and inform the Authorised Person (MGPS) of all test results;
- to carry out all work in accordance with the [premises] health and safety policy.

Designated Porter (MGPS)

The Designated Porter (MGPS) is a Porter or other suitably trained member of staff with specific responsibilities for medical gases. He/she will have undergone training in the identification and safe handling and storage of medical gas cylinders, including relevant manual handling training. Designated Porters (MGPS) in the Trust will undertake the following duties:

- assist with the delivery of gas cylinders by the gas supplier
- deliver full gas cylinders from the cylinder stores (as appropriate) to areas and return empty cylinders to these stores;
- attach to and remove from cylinders, medical equipment regulators (or regulator/flowmeter combinations) and manifold tailpipes.

5. Definitions

MGPS	Medical Gas Pipeline Supplies
AE	Authorised Engineer
AP (MGPS)	Authorised Person (MGPS)
Medical Gases	Medical Oxygen, Nitrous Oxide, Medical Air, Carbon Dioxide, Nitrogen, Helium
AGSS (Vacuum)	Anaesthetic Gas Scavenging System

6. Arrangements

In compliance with HTM 02, it is GHC duties:

- To ensure a safe supply, storage, transportation and use of medical gases
- To undertake suitable and sufficient risk assessments
- Testing and Maintaining records in line with relevant HTM 02 guidance

This will be achieved:

- By agreeing operation and maintenance procedures for the safe supply, storage and of medical gases.
- GHC complying with current relevant legislation and established best practice guidelines.
- By minimising the risk to patients and staff whose duties involve managing medical gas pipeline systems and others who may be exposed to it:
- By having assessed the risks from the safe supply, storage and transport of medical gases in the most appropriate and safe manner.

The establishment of a programme of modification of non-compliant systems to attain compliance

- By training staff, as appropriate, to deal with medical gases issues safely and appropriately
- By maintaining and communicating procedures and other guidance detailing the Trust's arrangements for the management of medical gases
- By maintaining and communicating procedures for the management of untoward events such as emergency leaking of medical gases
- By the maintaining of record drawings, test certificates and operation and maintenance manuals
- By maintaining comprehensive records to monitor and review progress and demonstrate the effectiveness, in terms of safety and cost, of the arrangements and procedures for the management of medical gases.

Medical gases should not be used for non-medical purposes other than as a test gas for medical equipment. Medical air should be used as the power source for ventilators; the routine use of oxygen as a driving gas is to be avoided. Before works on MGPS can commence, a permit-to-work form signed by an AP (MGPS) must be completed.

Divisional / Ward Managers Responsibilities

Managers with assistance of Estates, and Portering staff should ensure that the procedures relating to the management of medical gases are followed. This will include:

- An operational management plan is in place for each site under their control reflecting the actions from a workplace risk assessment.
- Ensuring premises and systems under their control have a Risk assessment and a written scheme for controlling any identified risks. A schedule of possible emergency incidents causing loss of medical gases.
- Ensuring that training is provided and attended by all members of staff who use or involved with medical gases as part of their work function
- Taking corrective action to rectify deviation from policy, including the reporting of any adverse incidents or 'near misses' associated with the management of medical gases in accordance with the Trust's Risk Management Strategy and Incident Reporting Procedure.

Employees' Responsibility

Staff should follow all procedures relating to the management of medical gases. This will include:

- Compliance with the Trust's policy and procedure for the safe supply, storage and transportation of medical gases in their place of work.
- Have received appropriate training in the theoretical and practical aspects of connecting and handling of medical gases.
- Understand the actions to take in the event of a failure of medical gases supply or medical gases quality failure.

- Reporting any adverse incidents or 'near misses' associated with the management of medical gases in accordance with the Trust's Risk Management Strategy and Incident Reporting Procedure.

7. Process for Monitoring Compliance

Compliance and Monitoring for MGPS will be carried out through an annual audit carried out by the AE with actions where required, Medical Gas Safety Committee, Authorised Person (MGPS), Head of Estates and the Estates Compliance Manager.

MGPS will be monitored for assurance and compliance through the Estates and Facilities Compliance Tracker and Property Assurance Model (PAM).

This policy will be reviewed every three years by the Authorised Engineer / Authorised Person with consultations from Medical Gas Safety Committee.

8. Training

All relevant staff will undergo specific training relevant to their role. On expiry of training relevant staff will attend refresher training in line with HTM-02 compliance.

9. References

Health and Safety at Work Act 1974

Management of Health and Safety at Work Regulations 1999

Construction (Design and Management) Regulations 2015

Health Technical Memorandum s (HTM 02-01 Medical gas pipeline systems Part A/B)

Pressure Systems Safety Regulations 2000 (PSSR)