HEALTH & SAFETY POLICIES

LEGIONELLA MANAGEMENT POLICY

April 2014

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<tr>
<td>Unique ID</td>
<td>NHSLHSLM01</td>
</tr>
<tr>
<td>Category/Level/Type</td>
<td>Level 1 Policy</td>
</tr>
<tr>
<td>Status and type of document</td>
<td>Health and Safety Policy</td>
</tr>
<tr>
<td>Date added to the Intranet</td>
<td>05.03.2014</td>
</tr>
<tr>
<td>Authorised by</td>
<td>NHS Lothian Health and Safety Committee</td>
</tr>
<tr>
<td>Date of implementation</td>
<td>01.04.2014</td>
</tr>
<tr>
<td>Key words</td>
<td>Legionella Management</td>
</tr>
<tr>
<td>Owner</td>
<td>AB/GC</td>
</tr>
<tr>
<td>Author(s)</td>
<td>H &amp; S Officer</td>
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<tr>
<td>Version number</td>
<td>2.0</td>
</tr>
<tr>
<td>Start date</td>
<td>01-04-2014</td>
</tr>
<tr>
<td>Authorised date</td>
<td>11.02.2014</td>
</tr>
<tr>
<td>Review Date</td>
<td>01-04-2016</td>
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EXECUTIVE SUMMARY

1.0 Key messages

1.1 NHS Lothian shall ensure that reasonable precautions are taken to prevent or control the risk of exposure to Legionella for patients, visitors, staff and other persons working at or using its premises in order to fully comply with legal requirements and our duty of care.

1.2 NHS Lothian shall ensure that all water outlets (baths, showers, sinks etc.) in occupied areas are run on a daily basis.

1.3 Where water outlets are retained in infrequently used or unoccupied areas, NHS Lothian Estates shall ensure that such outlets are flushed twice a week. With NHS Lothian managers and staff responsible for informing the NHSL Estates Department (or equivalent in PFI facilities) of any changes in frequency of use in such areas, particularly those areas which will be unoccupied.

1.3 NHS Lothian shall ensure that managers and staff in every area work with the Head of Soft FM (Facilities) and their staff to in order to comply with this policy, ensuring local arrangements are in place for the flushing of water outlets and that cleaning activities have been duly recorded by domestic staff for audit and compliance purposes.

1.4 NHS Lothian managers and staff shall notify the NHSL Estates Department (or equivalent in PFI facilities) of any faults or issues relating to the local water system, with significant incidents recorded (on Datix) and investigated in accordance with the Incident Management Policy.

1.5 The Director of Operations for Facilities shall ensure (primarily through the assignment of key roles and responsibilities), that critical activities pertaining to this Policy are undertaken, including, but not limited to, risk assessment, the management of risk through the use of a Written Scheme, Standard Operating Procedure and provision of suitable precautions, audit and review of the effectiveness of Legionella management measures and for compliance with the contents of this Policy.

1.6 The Director of Operations for Facilities shall ensure a systematic and robust system for monitoring, review, testing and resolution of faults is in place and is effective, ensuring that critical activities (including flushing), measurements and other key tasks associated with the management of legionella are formally recorded, where appropriate, in order to provide evidence of compliance with this policy and an auditable documentation record.

1.1 Legislative caveat

This Policy was published in 2013; consequently readers should be aware that in the period between publication and review there may be changes to standards or legislation referred to within this Policy document. This is of particular relevance to Facilities personal with respect to Scottish Health Technical Memorandum (SHTM) or British Standards (BS) publications which determine practical control measures.
# LEGIONELLA MANAGEMENT POLICY

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2.0 Introduction

2.1 In accordance with the Health and Safety at Work etc. Act 1974 NHS Lothian has a legal duty of care to those persons at work (NHS Lothian employees) and to those persons who may be exposed to risks arising out of or in connection with work activities (patients, visitors, contractors et al). NHS Lothian also has a duty to comply with specific legal requirements outlined in the clauses below and to adhere to best practice models as defined by Health Facilities Scotland in the form of Scottish Health Technical Memorandum (SHTM) 04-01, British Standards Institute guidance or other statutory or mandatory requirements where applicable.

2.2 The management of risk for an organisation of the scale and complexity of NHS Lothian would be significant enough were the risk purely confined to the extensive water system alone. However one must also consider the nature of the work of the organisation and particularly the presence of significant numbers of persons within a typical healthcare environment.

2.3 NHS Lothian shall therefore seek to ensure the health and safety of those persons who may be exposed to risks associated with the presence of naturally occurring bacteria (or chemicals used to treat such bacteria) within water supply systems with particular emphasis on staff and patient groups.

3.0 Policy Objectives

3.1 This policy shall establish the framework for full compliance with due regard to the following key objectives:

a) To identify the roles and responsibilities for water management within NHS Lothian.

b) To outline the risk reduction and prevention strategy for NHS Lothian with reference to the procedures for the testing of water systems for Legionella, to identify bacteria and other operational arrangements for legionella.

c) To outline the arrangements for reporting and monitoring of issues associated with water management.

d) To outline the process for audit and review to ensure corrective and preventive measures are effective and that continual improvement is sought so far as is reasonably practicable.

4.0 Scope of the Policy

4.1 This policy shall apply to all premises owned by NHS Lothian and/or premises managed by NHS Lothian Estates where patients, staff, visitors and other users (including contractors) have access.

4.2 The scope of this Policy shall include due consideration of the design, maintenance and operation of hot and cold water supply, storage and distribution systems in all types of healthcare premises and this commitment shall apply to both new and existing premises.
4.3 Where premises are neither owned by NHS Lothian nor managed by NHS Lothian Estates, for example a PFI facility, there shall be a commitment by NHS Lothian to fully co-operate with the owner/operator of such premises with respect to ‘local’ water management arrangements. Such arrangements may include a combination of NHS Lothian and owner/operator water management protocols following agreement with NHS Lothian and shall be communicated to NHS Lothian staff accordingly.

4.4 This Policy shall apply to water systems incorporating a cooling tower or evaporative condenser (where installed), hot and cold water systems and other plant and shall apply to systems containing water which is likely to exceed 20 degrees Celsius and which may release water in the form of spray (droplets) or aerosol (fine ‘mist’) and shall also apply to ventilation systems and hydrotherapy pools.

5.0 Legal Considerations

5.1 In addition to the Health and Safety at Work etc. Act 1974, NHS Lothian has a duty to comply with the statutory requirements outlined below. In order to achieve this aim there is a requirement for appropriate arrangements to be in place for effective planning, organisation, control, monitoring and review of any measures to safeguard health and safety. The following is a brief overview of legislation and its relevance to NHS Lothian:

5.2 The Management of Health and Safety at Work Regulations 1992 & (Amendment) Regulations 2006 requires every employer to make a suitable and sufficient assessment of all risks to health and safety of employees and other persons affected by their work activities. In terms of risk assessment, in addition to Legionella and other bacteria, other risks associated with hot and cold water systems include, but are not limited to, deterioration of water quality, scalding from hot water (refer to the NHS Lothian Management and Control of Hot Water Policy) and the risk of pipe bursts due to excessive pressures.

5.3 Control of Substances Hazardous to Health (COSHH) Regulations 2002 & (Amendment) Regulations 2004 apply to microorganisms such as Legionella and to the chemicals that may be used to control the growth of such microorganisms in water supplies. Employers have a duty to assess the risks from exposure to these substances to ensure that they are adequately controlled.

5.4 Public Health (Infectious Diseases) Regulations 1988 require that an appointed officer (the Head of Public Health in the case of NHS Lothian) shall inform the Chief Medical Officer for Scotland, of any serious outbreak of any disease that to his/her knowledge has occurred in the district.

5.5 Water Supply (Water Quality) (Scotland) Regulations 2001 (and 2012 amendments) covers water supplied to any hospital which is used for domestic purposes such as drinking, washing or cooking.

5.6 Food Safety Act 1990 covers water used for food preparation or food manufacture and also includes water used for drinking.
5.7 *The control of legionella bacteria in water systems, Approved Code of Practice L8 (2000)* - while this Code of Practice is not legally binding per se, there is an expectation by the HSE that NHS Lothian should provide arrangements that are as good as, or better than, those required by this document.

Compliance with the guidance document SHTM 04-01: ‘The control of Legionella, hygiene, “safe” hot water, cold water and drinking water systems’ will generally satisfy the requirements of the Approved Code of Practice L8.

5.8 *The Scottish Water Byelaws 2004* establishes that the water authority is responsible for water supply and has a statutory duty to enforce for the prevention of waste, undue consumption, misuse and contamination of water supplied in its area. NHS Lothian shall be expected to co-operate with the water authority with respect to their statutory role.

6.0 **NHS Lothian Organisational Roles and Responsibilities**

6.1 While the ultimate responsibility and accountability for Policy implementation resides with the Chief Executive and Board of NHS Lothian, in practice this Policy shall be implemented through assigned roles and responsibilities primarily within, but not limited to, the Facilities Directorate.

Organisational Roles and Responsibilities can be summarised as follows;

6.2 **The Chief Executive and NHS Lothian Board is responsible for:**

a) Ensuring the full and effective implementation of this Policy and of the key aims identified within the NHS Lothian Health and Safety Policy

b) Ensuring there are suitable and sufficient arrangements in place for the management of water systems and control of legionella within NHS Lothian, including necessary resources, monitoring processes and incident oversight.

c) Ensuring that the Lothian Partnership Forum review this Policy when changes occur or where the Policy review date has been reached.

6.3 **The Director of Facilities, as designated person, is responsible for:**

a) Providing the Chief Executive and NHS Lothian Board with information pertaining to the management of water systems within NHS Lothian and professional advice therein as required. This shall include a commitment to provide assurance, to the Chief Executive and NHS Lothian Board, that their corporate level responsibilities have been fully met in practice.

b) Providing a point of contact between NHS Lothian and external parties, including relevant enforcing authorities (HSE, SEPA etc.)

c) Ensuring that NHS Lothian has a written scheme in place outlining the requirements for the Management and Control of water systems and legionella.

d) Ensuring that NHS Lothian is fully compliant with the provisions of *The control of legionella bacteria in water systems, Approved Code of Practice L8 (2000).*

e) Ensuring there is full compliance with any other legal considerations.
f) Ensuring there is a suitable and sufficient procedure(s) in place governing the design, maintenance and operation of hot and cold water supply, storage and distribution systems in all NHS Lothian premises (both new and existing).

g) Ensuring that specific roles and responsibilities required to achieve full compliance with the provisions of this Policy within the Facilities Directorate are assigned and are fully effective in practice. These roles and responsibilities shall be clearly defined in the Written Scheme/SOP that accompanies this Policy document and shall include, the roles of ‘Responsible Person’ and ‘Authorised Person (Water)’ as defined within Scottish Health Technical Memorandum (SHTM) 04-01, including the need to ensure that deputies are available to cover these key operational roles.

h) Ensuring there is a robust mechanism for the monitoring and validation of the water management system, including the need to ensure that measures for the treatment, sampling, cleaning and suitable reactive measures following any identified outbreaks of legionella are both in place and are effective.

i) Ensuring there are suitable arrangements in place for the review and audit of this policy document to ensure that the policy remains fit for purpose and that full policy compliance is achieved. With due reference to Section 12.0 Audit and Review.

6.4 **The Head of Soft FM (Facilities) is responsible for:**

Ensuring that all Area Managers (Soft FM) and their associate Domestic Managers and their deputies are aware of this Policy and the requirement to ensure that the specific duty of flushing of all water outlets and showers is carried out on a daily basis in occupied wards and departments and recorded on a weekly basis in the activity record log (refer to the Facilities Standard Operating Procedure For Flushing and Cleaning Water using appliances). They must also ensure that the protocol for cleaning of sinks, taps and showers is adhered to.

6.5 **The Responsible Person (Water) should**

Ensure that Clinical and Domestic staff within occupied areas of each site understand their responsibilities for the requirement to flush every water using appliance within their work area on a daily basis even in areas where the occupant of a room is unable to use the water appliances themselves. These responsibilities are also detailed in the accompanying Standard Operating Procedure.

6.6 **The Director of Capital Planning is responsible for:**

a) Ensuring that any new works or refurbishment undertaken within existing premises shall comply with the requirements of this Policy and the Facilities Written Scheme and the Facilities Operational Procedure, *The control of Legionella, hygiene, ‘safe’ hot water, cold water and drinking water systems.*

b) Ensuring that all potential interfaces between an existing water system and any new or refurbishment works shall meet the approval of the relevant Co-ordinating Authorised/Authorised Person (Water).

c) Ensuring that any work involving the installation of water services or equipment requiring a water supply shall comply with the requirements of *Scottish Health Technical Memorandum (SHTM) 04-01* and *The control of legionella bacteria in...*
water systems, Approved Code of Practice L8 (2000) and compliance with the above documents shall be certified by the design Engineer.

d) Ensuring that any works which will affect a water system (or part therein) shall be discussed with the Estates Co-ordinating Authorised/Authorised Person prior to arranging that work.

6.7 **Directors of Operations, Hospital Site Directors and Service Directors are responsible for:**

a) Ensuring all managers are aware of this Policy and the requirements contained therein

b) Liaising with NHS Lothian Estates to determine any site specific conditions that may apply with respect to the management of water systems for example where PFI contracts exist.

c) Liaising with NHS Lothian Domestic Service Management to ensure compliance with 6.4 above

d) Ensuring the NHS Lothian Health and Safety Committee is apprised of the status of water management system in their area of responsibility and is promptly notified of any issues identified with respect to operational procedures, management controls or significant incidents.

6.8 **CMTs/Service Managers/Charge Nurse or equivalent is responsible for:**

a) Ensuring staff awareness of the contents of this Policy and relevant sections of the associated standard operating procedure pertaining to their area of responsibility.

b) Ensuring that faults and incidents are duly recorded and investigated using the NHS Lothian Incident Management Policy and DATIX system where applicable and that NHS Lothian Estates Department are notified accordingly.

6.9 **All members of staff are responsible for:**

a) Compliance and co-operation with the provisions of this Policy, the associated Procedure and any instructions given by line management.

b) Informing line management of any faults/defects or concerns relating to water management (leakages, issues with temperature levels etc.) and for participation in incident investigation where applicable.

c) Wearing of appropriate Personal Protective Equipment (PPE) issued by NHS Lothian whilst undertaking any activities where exposure to a biological or chemical agent may occur. In particular those Facilities staff tasked with maintenance or sampling of water systems.

6.10 **NHS Lothian Water Safety Committee is responsible for:**

a) Oversight of incidents and occurrences of legionella within NHS Lothian. The Committee includes Facilities, Infection Control, Capital Planning, Health Protection, Microbiology and Laboratory delegates.
7.0 Facilities Operational Arrangements

7.1 The following sections outline the key requirements for full compliance with Health and Safety Legislation pertaining to the management and control of Legionella and are derived primarily from ‘The control of legionella bacteria in water systems, Approved Code of Practice L8’ (2000).

8.0 Identification and assessment of the risk of exposure to legionella

8.1 A suitable and sufficient risk assessment shall be carried out by NHS Lothian (see 8.2) or the person in control of the premises, to identify and assess the risk of exposure to legionella bacteria from water systems and work activities within premises defined within the scope of this Policy.

In practice the completion of the risk assessment shall be the responsibility of the ‘Responsible Person’ (Facilities) appointed by the Director of Facilities (6.3g) and this role shall include due consideration of the need for consultation and communication within the context of the risk assessment process.

8.2 The risk assessment shall be used to determine precautionary measures, particularly, but not limited to, those areas where patients are located.

8.3 The process for conducting the risk assessment is outlined within the Approved Code of Practice L8.

9.0 Managing the risk

9.1 Where a risk assessment determines a foreseeable risk and it is reasonably practicable to prevent or control the risk of exposure, NHS Lothian or the person in control of the premises should appoint person(s) to manage the responsibility and implementation of precautions.

9.2 The roles and responsibilities pertaining to NHS Lothian management of the risk are outlined within Section 6 of this document and the associated NHS Lothian Facilities procedural document. Management roles and responsibilities, when assigned, should give due consideration to the following:

a) The competence and expertise of persons assigned roles and responsibilities.
b) Methods required for implementation, monitoring and review of arrangements
c) Provision of necessary staffing levels to fulfil compliance
d) Call-out arrangements
e) Methods of communication (both internal NHSL and external)
f) The use of contractors (with reference to the Control of Contractors Policy)

10.0 Preventing or controlling the risk from exposure to legionella bacteria

10.1 Where a risk of exposure has been identified NHS Lothian or the person in control of the premises, must ensure a written scheme for the control and management of risk from exposure is in place, suitably managed and remains effective.

10.2 For NHS Lothian, this scheme will largely be defined within the Facilities written scheme document associated with this Policy entitled Written Scheme and Operational Procedure for Managing the Control of Legionella, Hygiene, ‘Safe’ Hot Water, Cold Water & Drinking Water Systems and the related Standard Operating
Both of which must take into account the requirements contained within ‘The control of legionella bacteria in water systems, Approved Code of Practice L8 (2000) and SHTM 04-01.

11.0 Facilities Record keeping

11.1 Persons assigned roles and responsibilities (see 9.0 and 6.0) shall ensure that appropriate records are kept, in electronic or written format where applicable, with due consideration of the potential for record capture by PDA devices and the necessity to ensure that records are held securely to preclude loss or damage. With respect to electronic records there should also be due consideration of the need to retain back up copies and to consider future proofing of data (i.e. where a new electronic record management system may potentially be incompatible with older file formats) and to the use of electronic records for trend analysis. Such records shall include details of the following:

a) The person(s) actually responsible for conducting risk assessment, managing and implementing the written scheme
b) Significant findings from risk assessment
c) The written scheme as listed at 10.0
d) The results of monitoring, inspection, test or checks carried out and the dates

11.2 Records should be retained throughout the period they remain current and at least two years thereafter, with the exception of those records mentioned in 11.1 (d) which should be retained for 5 years.

*Refer to the Approved Code of Practice L8, Pages 13 to 14 for more information on record keeping

12.0 Audit and Review

The method for achieving compliance with the provisions of this Policy shall be established by the Director of Facilities with due consideration to the requirement to identify key individual(s) involved in the audit process, the frequency and nature of audits and crucially the mechanism for the escalation of results and remedial actions required therein.

Consideration should be given to the creation of a performance standard to assist with monitoring the extent of Policy compliance. The performance standard should consider measurable indicators of performance including quantity measures, quality checks, timescales, training levels, resource allocation, response times, incident and general statistics, cost and other measurable outcomes or goals.

In practice the ‘Responsible Person’ would have a key role within the compliance audit process, with the frequency and targeting of audits based to a greater extent on their knowledge and understanding of the operational arrangements for the management of Legionella within NHS Lothian.

The audit process should compliment the existing monitoring, inspection, test or check arrangements and should ultimately assist the Director of Facilities in providing assurance to the Chief Executive and Board of NHS Lothian that their corporate level responsibilities have been fully met (6.3).
The outcome from audits (including any review and action plans) shall be escalated to the NHS Lothian Health and Safety Committee by the Director of Facilities. There should also be consideration of the creation of a strategic action plan to address any audit recommendations or remedial measures that may be required in light of the outcome of systematic audits.

While the Approved Code of Practice, L8, requires that risk assessments are completed every two years; however it is the recommendation of the External Audit Report of April 2013 that there should be a formal review audit of assessments annually.

In addition audits should be carried out to assess contractor’s performance and any works carried out on water systems should be subject to a formal review to confirm that work was carried out to correct design and standard parameters and with the correct materials.

There is a requirement to ensure that planned preventive maintenance (PPM) is also reviewed, with due consideration of the requirement to identify resourcing or operational issues that may need to be incorporated into the strategic action plan.

Audit results will be subject to the same Record keeping requirements as other documentation associated with the Management of Legionella Policy (11.2) in order to provide a sound audit trail.

This Policy document shall be subject to review in two years time from the date of issue or sooner following an audit or review of the water management system that identifies significant gaps, omissions or the need for remedial measures.

13.0 Equality and Diversity

13.1 No significant issues are anticipated within the parameters of this Policy.

14.0 Related Documents

NHS Lothian documents available of the intranet:

- NHS Lothian Incident Management Policy
- NHS Lothian Incident Management Operational Procedure.
- Management and Control of Hot Water Policy
- Control of Contractors Policy
- NHS Lothian Health and Safety Policy

In addition this policy should be read in conjunction with the NHS Lothian Facilities procedure document, Written Scheme and Operational Procedure for Managing the Control of Legionella, Hygiene, ‘Safe’ Hot Water, Cold Water & Drinking Water Systems and the Standard Operating Procedure For Flushing and Cleaning Water using appliances.

15.0 References

- **Scottish Health Technical Memorandum 04-01**: Water safety for healthcare premises Part A: Design, installation and testing

- **Scottish Health Technical Memorandum 04-01** Water safety for healthcare premises Part B: Operational management
• Scottish Health Technical Memorandum 04-01: Water safety for healthcare premises: Part C: TVC Testing Protocol

• Scottish Health Technical Memorandum 04-01: The control of Legionella, hygiene, ‘safe’ hot water, cold water and drinking water systems Part D: Disinfection of Domestic Water Systems

• Scottish Health Technical Memorandum 04-01: The control of Legionella, hygiene, ‘safe’ hot water, cold water and drinking water systems Part E: Alternative materials and filtration

• Scottish Health Technical Memorandum 04-01: The control of Legionella, hygiene, ‘safe’ hot water, cold water and drinking water systems Part F: Chloramination of water supplies

• Health and Safety at Work Etc. Act 1974, sections 2, 3, 4 and 6 (relating to manufacturers, importers, suppliers and installers duties)

• Management of Health and Safety at Work Regulations 2003, Regulation 3 and 5

• Control of Substances Hazardous to Health Regulations 2012, Regulation 6, 7, 8, 9 and 12

• The control of legionellosis (including Legionnaires disease) HSG70 and the 1998 supplement The control of legionellosis in hot and cold water systems MISC 150 – essentially a practical guidance to compliance with the ACoP


As of July 2013, NHS Lothian does not have any Cooling Towers within the scope of the organisation, however it is logical to retain reference to these as it is conceivable that NHS Lothian may occupy new or existing premises in the future that include these features within the design parameters and consequently their presence would need to be considered as a key part of the Legionella Management system at that time.