

TRUST-WIDE NON-CLINICAL POLICY DOCUMENT

WATER SAFETY POLICY - LEGIONELLA AND OTHER WATERBORNE PATHOGENS

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2020 – Version 5

*Striving for perfect care
and a just culture*

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WATER SAFETY POLICY - LEGIONELLA AND OTHER WATERBORNE PATHOGENS

Further information about this document:

Document name	Water Safety Policy – Legionella and other Waterborne Pathogens - SA28
Document summary	The purpose of this policy is to ensure that appropriate systems and procedures are in place to minimise the risk of Legionella and other Waterborne Pathogens within the trust’s hot and cold water systems.
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To be read in conjunction with	IC01 Infection Prevention and Control Policy
This document can be made available in a range of alternative formats including various languages, large print and braille etc	
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Version 2		
Version 3	Executive Director of Finance & Resource	December 2013
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Version 5	Executive Director of Communications and Corporate Governance	March 2020

SUPPORTING STATEMENTS

this document should be read in conjunction with the following statements:

SAFEGUARDING IS EVERYBODY'S BUSINESS

All Mersey Care NHS Foundation Trust employees have a statutory duty to safeguard and promote the welfare of children and adults, including:

- being alert to the possibility of child / adult abuse and neglect through their observation of abuse, or by professional judgement made as a result of information gathered about the child / adult;
- knowing how to deal with a disclosure or allegation of child /adult abuse;
- undertaking training as appropriate for their role and keeping themselves updated;
- being aware of and following the local policies and procedures they need to follow if they have a child / adult concern;
- ensuring appropriate advice and support is accessed either from managers, *Safeguarding Ambassadors* or the trust's safeguarding team;
- participating in multi-agency working to safeguard the child or adult (if appropriate to your role);
- ensuring contemporaneous records are kept at all times and record keeping is in strict adherence to Mersey Care NHS Foundation Trust policy and procedures and professional guidelines. Roles, responsibilities and accountabilities, will differ depending on the post you hold within the organisation;
- ensuring that all staff and their managers discuss and record any safeguarding issues that arise at each supervision session

EQUALITY AND HUMAN RIGHTS

Mersey Care NHS Foundation Trust recognises that some sections of society experience prejudice and discrimination. The Equality Act 2010 specifically recognises the *protected characteristics* of age, disability, sex, race, religion and belief (or lack thereof), sexual orientation, gender reassignment, pregnancy and maternity and marital and civil partnership status. The Equality Act also requires regard to socio-economic factors.

The trust is committed to promoting and advancing equality and removing and reducing discrimination and harassment and fostering good relations between people that hold a protected characteristic and those that do not both in the provision of services and in our role as a major employer. The trust believes that all people have the right to be treated with dignity and respect and is committed to the elimination of unfair and unlawful discriminatory practices.

Mersey Care NHS Foundation Trust also is aware of its legal duties under the Human Rights Act 1998. Section 6 of the Human Rights Act requires all public authorities to uphold and promote Human Rights in everything they do. It is unlawful for a public authority to perform any act which contravenes the Human Rights Act.

Mersey Care NHS Foundation Trust is committed to carrying out its functions and service delivery in line with a Human Rights based approach and the FREDA principles of **F**airness, **R**espect, **E**quality **D**ignity, and **A**utonomy

Contents

Section	Page No
1. Purpose and Rationale	5
2. Outcome Focused Aims and Objectives	6
3. Scope	6
4. Definitions	6
5. Duties	7
6. Process	12
7. Consultation	16
8. Training and Support	17
9. Monitoring	17
10. Equality and Human Rights Analysis	18
11. Appendices	22

1. PURPOSE AND RATIONALE

- 1.1. This policy covers the control of waterborne infection risks in Trust water systems. It identifies how the Trust will meet its legal duties under the Health and Safety at Work etc Act 1974 and the Control of Substances Hazardous to Health Regulations 2002 by taking all reasonable precautions to prevent or minimise the harmful effects of microbiologically contaminated water to its service users, staff and other persons working at or using its premises.
- 1.2. Staff involved with managing, maintaining or the provision of water systems, supervising such work, or issuing contracts for work, should fully familiarise themselves with the contents of this document.
- 1.3. Mersey Care NHS Foundation Trust (the Trust) believes that the health, safety and welfare of all persons engaged in, or affected by, its actions is paramount and it is committed to doing all that is reasonably practicable to provide an environment and systems of work that are safe and healthy for all.
- 1.4. Legionnaires' disease is a potentially fatal form of pneumonia, which will particularly affect the elderly, immunosuppressed, smokers and generally those in hospital with predisposing conditions. Infection with the Legionella bacteria (principally *L. pneumophila*) can be fatal in about 12% of the reported cases; this however can be higher with nosocomial legionellosis. Although there are over 65 species of the Legionella bacterium, the majority of cases are caused by Legionella pneumophila serogroup 1. Legionella bacteria are commonly found in natural water sources but can enter engineered water systems from the mains supply. Cases of Legionnaire's' disease can occur amongst staff in the workplace, work related visitors and the general public unless adequate precautions are taken to protect those systems.
- 1.5. *Pseudomonas aeruginosa* is commonly found in wet or moist environments. It is commonly associated with disease in humans with the potential to cause infections in almost any organ or tissue, especially in patients compromised by underlying disease, age or immune deficiency. Its significance as a pathogen is exacerbated by its resistance to antibiotics, virulence factors and its ability to adapt to a wide range of environments.
- 1.6. Whilst this policy and the applicable legislation were originally developed to address the risk of Legionellosis it has developed to address other waterborne risks, including *Pseudomonas aeruginosa*, which present risks to patients and require similar management and control.

1.7. Waterborne pathogens

- 1.7.1. Legionella, Pseudomonas, Mycobacteria and Stenotrophomonas bacteria are opportunistic pathogens that can increase the risk of infection in immunocompromised patients. They persist and grow in building water systems, habitats they share with humans.
- 1.7.2. They can be inhabitants of drinking water that share a number of key characteristics that predispose them to survival,
 - 1.7.2.1. growth in biofilms,
 - 1.7.2.2. persistence,
 - 1.7.2.3. growth in hot and cold water distribution systems
 - 1.7.2.4. growth at low organic carbon concentrations
 - 1.7.2.5. disinfectant-resistance
 - 1.7.2.6. growth under conditions of stagnation.

2. OUTCOME FOCUSED AIMS AND OBJECTIVES

2.1. The purpose of this policy is to ensure that appropriate systems and procedures are in place to minimise the risk of Legionella and other Waterborne Pathogens within the trust's hot and cold water systems.

3. SCOPE

3.1. This policy covers all water systems within all sites and buildings across the trusts estate.

4. DEFINITIONS

4.1. Glossary of Terms Definition

4.1.1. ACOP	Approved Code of Practice
4.1.2. COSHH	Control of Substances Hazardous to Health
4.1.3. MHSWR	The Management of Health and Safety at Work Regulations
4.1.4. BS	British Standard
4.1.5. WSG	Water Safety Group
4.1.6. WSP	Water Safety Plan
4.1.7. RP	Responsible Person
4.1.8. DRP	Deputy Responsible Person
4.1.9. EPDM	Ethylene Propylene Diene M-class Rubber
4.1.10. HSWA	Health and Safety at Work Act
4.1.11. HSE	Health and Safety Executive
4.1.12. HSS	High Secure Services (Ashworth Hospital)
4.1.13. HSG	Health and Safety Guidance
4.1.14. HTM	Health Technical Memorandum
4.1.15. IPCT	Infection Prevention and Control Team
4.1.16. IPCC	Infection Prevention and Control Committee
4.1.17. UKAS	United Kingdom Accredited Service
4.1.18. WRAS	Water Regulations Advisory Scheme
4.1.19. PPM	Planned Preventative Maintenance

4.2. Health and Safety at Work, etc. Act 1974 (HSWA)

4.2.1. The principal legislation dealing with workplace health and safety is the HSWA and extends to the risk from Legionella bacteria which may arise from work activities.

4.3. The Control of Substances Hazardous to Health Regulations 2002 (COSHH)

4.3.1. Harmful bacteria such as Legionella and are subject to controls of the COSHH regulations. The COSHH framework provides actions designed to control the risk and requires that:

- 4.3.1.1. risk assessments are carried out;
- 4.3.1.2. steps are taken to prevent exposure where total removal of the hazardous substance is not reasonably practicable;
- 4.3.1.3. maintenance, examination and testing of control measures
- 4.3.1.4. provision of information, instruction and training for employees

4.4. The Management of Health and Safety at Work Regulations 1992 (MHSWR)

4.4.1. Provides a broad framework for controlling health and safety at work.

4.5. The Notification of Cooling Towers and Evaporative Condensers Regulations 1992

4.5.1. The Trust does not have any system that falls within the scope of these regulations.

4.5.2. The Trust, in implementing this policy, will use the following documents as a source of practical guidance.

4.6. Legionnaires' disease – The Control of Legionella Bacteria in Water Systems. Approved Code of Practice & Guidance (L8) Fourth edition 2013 (ACOP)

4.6.1. The ACOP applies to the control of Legionella bacteria in any workplace where there is a risk of harmful exposure to Legionella bacteria. Hot and cold water systems and plant containing water bring the Trust within this scope. The ACOP provides a basic framework for preventing outbreaks of the disease; It places responsibility on employers and others to:

4.6.1.1. Identify and assess sources of risk;

4.6.1.2. Prepare a scheme for preventing or controlling the risk;

4.6.1.3. Implement and manage precautions;

4.6.1.4. Keep records of the precautions implemented and will do so for each of the health care premises within the Trust

4.6.2. It also gives advice on the management, selection, training and competence of personnel.

4.7. Legionnaires' disease Part 2: The control of legionella bacteria in hot and cold water systems 2014 (HSG274)

4.7.1. HSG 274 gives practical guidance on how to assess and control the risks due to legionella bacteria.

4.8. Health Technical Memorandum 04-01 Safe water in healthcare premises 2016 (HTM)

Part A: Design, installation and commissioning

Part B: Operational management

Part C: Pseudomonas aeruginosa – advice for augmented care units

4.9. Supplement Performance specification D 08: thermostatic mixing valves (healthcare premises) 2017

4.9.1. HTM04-01 has been written to promote good practice for those responsible for the design, installation, commissioning, operation and maintenance of water services in healthcare premises.

4.10. BS 8580-1:2019 Water quality - Risk assessments for Legionella control - Code of practice

4.10.1. This British Standard gives recommendations and guidance on Legionella risk assessment relevant to water systems

5. DUTIES

5.1. The Trust recognizes its responsibility to implement in full the guidance presented in section 5 in order that they properly control their water supply and distribution system. The Trust is aware that criminal prosecution may result from conditions which fail to control/minimise the growth of Legionellae bacteria even though there is no evidence that the bacteria are present or that an outbreak has occurred.

5.2. The Trust as an employer has a general duty under the HSWA to ensure so far as is reasonably practicable, the health, safety and welfare of all its employees.

5.3. HSWA 2(1) requires employers to:-

5.3.1. Provide and maintain plant and systems of work that are safe and free from health risks.

5.3.2. Make arrangements for ensuring safety and the avoidance of health risks in connection with the use, handling, storage and transportation of articles and substances [HSWA 2(2)b].

5.3.3. Provide such information, instruction, training and supervision to ensure the health and safety at work of their employees [HSWA 2(2)c].

5.3.4. Provide a safe working environment [HSWA 2(2)e].

5.4. Those in control of premises must ensure that they are safe and that any plant or substance does not endanger the health of all persons at work and the general public (HSWA 4).

5.5. CHIEF EXECUTIVE OFFICER (*Duty Holder*)

5.5.1. The Chief Executive Officer has overall responsibility for health, safety and welfare at Mersey Care NHS Trust and is responsible for ensuring the Trust has an effective Water Safety policy that is managed and reviewed appropriately.

5.6. EXECUTIVE DIRECTOR OF COMMUNICATIONS AND CORPORATE GOVERNANCE

5.6.1. The Executive Director of Communications and Corporate Governance is the accountable officer for the trust and has been delegated overall responsibility for Health and Safety within the trust as detailed within the Scheme of Reservation and Delegation acting on behalf of the Chief Executive Officer.

5.6.2. The Executive Director of Communications and Corporate Governance shall:

5.6.2.1. Have overall responsibility for all aspects of the quality of water supplies within all the trust properties;

5.6.2.2. Nominate in writing the Responsible Person and Deputy Responsible Person(s) with specific regard to Legionella precautions, ensuring such staff are suitably qualified;

5.6.2.3. As far as is reasonably practical, ensure that the Responsible Person shall be given access to sufficient resources to ensure the effective control of Legionella in water systems.

5.7. ASSOCIATE DIRECTOR OF ESTATES AND FACILITIES (*Responsible Person (RP)*)

5.7.1. In practice, the overall day to day responsibility for the control of Legionella is delegated to the Responsible Person – the Associate Director of Estates and Facilities.

5.7.2. The Responsible Person (Associate Director of Estates and Facilities) shall:

5.7.2.1. Accept management responsibility for Legionella control;

- 5.7.2.2. With the assistance of the Water Safety Group (WSG), prepare and implement an Operational Policy on Legionella control;
- 5.7.2.3. Put in place arrangements for reporting an outbreak or suspected outbreak of Legionella;
- 5.7.2.4. Audit precautions on the control of Legionella;
- 5.7.2.5. Issue a compliance report to the WSG - as requested, but at least on a yearly basis;
- 5.7.2.6. Assess the training needs for training of staff (including self) in control of Legionella;
- 5.7.2.7. Ensure personal training records are kept up to date;
- 5.7.2.8. Ensure record drawings of systems are available and kept updated;
- 5.7.2.9. Ensure that the Trust as 'Duty Holder' is fulfilling its duties under the Legionella ACOP and HTM04-01 series guidance.
- 5.7.2.10. Monitor the actions of the Deputy Responsible Person.
- 5.7.2.11. Have sufficient authority, ability and experience to ensure measures are taken to adequately control water safety risks. Where the necessary expertise is not possessed in house the Trust will appoint a competent external source for advice. The Responsible person will ensure that the role of the consultant and all delegated roles and responsibilities are clearly defined.
- 5.7.2.12. Shared responsibility for the production of the Water Safety Policy, Water Safety Plans Written Scheme of Control and risk assessments.

5.8. ESTATES SYSTEMS MANAGER (*Deputy Responsible Person (DRP)*)

5.8.1. The Deputy Responsible Person shall:

- 5.8.1.1. Accept management responsibility for all the tasks described below and deputized management responsibility of all the tasks listed under the RP section in their absence;
- 5.8.1.2. Ensure Legionella Risk Assessments and two-yearly Legionella Risk Assessment Reviews are undertaken on all water systems and air conditioning plant;
- 5.8.1.3. Identify the required control measures and prioritise them according to the level of risk, implementing these measures where reasonably practicable;
- 5.8.1.4. Carry out remedial works highlighted during Risk Assessments (subject to the approval of adequate resources by the trust);
- 5.8.1.5. Ensure records of Risk Assessments and associated precautions are implemented and maintained;
- 5.8.1.6. Liaise between suitable training establishments to provide approved courses on control of Legionella;
- 5.8.1.7. Monitor the actions of the Water Contractor;
- 5.8.1.8. Ensure the RP is kept informed of actions.

- 5.8.1.9. Shared responsibility for the production of the Water Safety Policy, Water Safety Plans Written Scheme of Control and risk assessments.
- 5.8.1.10. Day to day management and implementation of the control measures within the written scheme of control, including planned preventative maintenance tasks such as tank cleaning, temperature testing and water sampling.
- 5.8.1.11. Ensure any contractors appointed to work on water systems possess appropriate competency for the task.

5.9. THE WATER CONTRACTOR / WATER CONSULTANT

5.9.1. The Water Contractor / Water Consultant shall:

- 5.9.1.1. Accept responsibility for all the tasks described below;
- 5.9.1.2. Undertake review annually and maintain Risk Assessments for all areas under their control;
- 5.9.1.3. Implement maintenance and inspection routines, as described in the Legionella Risk Assessment (or Risk Assessment Review) in accordance with HTM04-01, HSE ACOP and Guidance L8 and other relevant guidance documents;
- 5.9.1.4. Keep maintenance and monitoring records and make available for inspection as necessary. All written and electronic records are to be kept for five years;
- 5.9.1.5. Ensure that all sentinel outlets, tank temperatures and mixing valve maintenance is undertaken at the required intervals as specified or within the agreed work procedures;
- 5.9.1.6. Ensure the Water Services Logbook for the site is reviewed annually and maintained to reflect the current position at all times;
- 5.9.1.7. Inform external bodies responsible for sewers before any chlorinated water is discharged into the drainage system;
- 5.9.1.8. Ensure all the requirements of the Maintenance Operational Procedural Requirements are complied with.

5.10. DEPARTMENTAL MANAGERS, WARD MANAGERS AND PROJECT MANAGERS

5.10.1. Departmental, Ward or Project Managers shall:

- 5.10.1.1. Ensure that there is access to all water outlets, to enable regular usage;
- 5.10.1.2. Ensure that shower rooms, bathrooms and toilet areas are not used as storage rooms;
- 5.10.1.3. Report any water temperature problems, broken taps, showers or toilets to the Estates and Facilities Helpdesk on telephone number 0151 473 3501;
- 5.10.1.4. Report any areas of concern regarding under-usage of water outlets to either the Estates and Facilities Helpdesk on telephone number 0151 473 3501;
- 5.10.1.5. Consider removal of any showers, sinks, wash hand basins, etc., that are not being used regularly;
- 5.10.1.6. Ensure that all underused water outlets (hot and cold water taps, pre-prayer washing facilities e.g. Wudu, showers and toilets) are flushed at least weekly.

5.10.1.7. Record all underused outlets which need to be flushed regularly (at least weekly) using the Flushing Schedule Record Sheet which can be found on the trust SharePoint system.

Underused water outlets are those outlets which are NOT used on a regular basis, i.e. a minimum of ONCE per week;

5.10.1.8. For a ward closure, the projects manager must ensure that flushing is undertaken by the Contractor / sub-contractor during refurbishment. It is essential that a record is kept and monitored by the project manager

5.11. EXTERNAL COMPETENT WATER SAFETY ADVISOR (*Authorising Engineer (Water)*)

5.11.1. The AE (Water) will act as an impartial, independent professional adviser to the Trust with a brief to provide consultancy services in accordance with the relevant statutory regulations and guidance that is specific to water hygiene obligations.

5.11.2. The trust has approached an external Authorising Engineer (Water) - Steve Mount to undertake a review of this policy and to update it to reflect changes in legislation and to capture the changes in services provided by the Trust including Community Health.

5.12. THE WATER SAFETY GROUP (WSG)

5.12.1. The Water Safety Group is accountable to the Trust duty holder.

5.12.2. The WSG shall comprise: Legionella Responsible Person (Associate Director of Estates and Facilities) and Deputy Responsible Person (Estates Systems Manager), Site Responsible Person(s), Water Contractor, Infection Prevention and Control, Health and Safety Manager and Service Representatives, Representative from Estates Capital Projects team, External Water Safety Advisor (AE Water), Representatives from the Facilities team.

5.12.3. The WSG responsibilities shall include:

5.12.3.1. Ratification of appointment of people into positions of 'responsibility';

5.12.3.2. Actions to be taken in case of a Legionella outbreak (Public Health England has defined an outbreak as where two or more confirmed cases of Legionella have occurred in the same locality within a six month period);

5.12.3.3. Ratification of all relevant documentation, works specifications, Planned Preventative Maintenance (PPM) programmes, policies etc.;

5.12.3.4. Monitoring and reporting upon the efficacy of all implemented PPM programmes and all other relevant procedures;

5.12.3.5. Monitoring and reporting upon the efficacy of, and appointing all contractors commissioned on, Legionella-related projects;

5.12.3.6. Acting as liaison between all other associated teams, e.g. the IPCC (particularly in an outbreak situation);

5.12.3.7. Monitoring and reporting upon the efficacy of all training programmes implemented for appropriate staff.

5.12.3.8. The group shall meet at intervals no greater than six-monthly. The meetings shall have minutes taken and the minutes retained for at least five years. The minutes shall be submitted to the Infection Prevention and Control Committee

5.13. EMPLOYEES DUTIES

- 5.13.1. Employees have a duty under Section 7 of the Health and Safety at Work Act etc. 1974 to take reasonable care for their own health and safety and of that of others who may be affected by their acts or omissions at work.
- 5.13.2. Towards this end, employees should use correctly all work items provided by their employers, in accordance with their training and their instructions they receive to enable them to use the items safely.
- 5.13.3. Employees' duties under Section 7 also include co-operating with their employer to enable the employer to comply with statutory duties for health and safety.
- 5.13.4. Employers or those they appoint (e.g. under Regulation 6 of the COSHH Regulations) to assist them with health and safety matters therefore need to be informed without delay of any work situation which might present a serious and imminent danger. The danger could be to the employee concerned or, if it results from the employee's work, to others.
- 5.13.5. Employees should also notify any shortcomings in the health and safety arrangements, even when no immediate danger exists, so that employers in pursuit of their duties under the HSWA and other statutory provisions can take such remedial action as may be needed.

5.14. AUGMENTED CARE UNITS

- 5.14.1. HTM 04-01 requires that Trusts define areas of augmented care where additional water safety arrangements will be required. The Trust estate does not contain any augmented care areas.

5.15. GOVERNANCE AND METHODOLOGY FOR ENSURING WATER SAFETY

- 5.15.1. To implement the Trusts legal duties, the duty holder should appoint a Water Safety Group (WSG) to undertake the commissioning, development, implementation and review of a Water Safety Plan (WSP) as per HTM04-01 Part B. The aim of the WSG is to ensure the safety of all water used by patients/residents, staff and visitors, and to minimise the risk of infection associated with waterborne pathogens.
- 5.15.2. A Water Management Group or Water Safety Group (WSG) has been formed from the key stakeholders below with a remit to oversee all water safety issues.

6. PROCESS

6.1. RISK ASSESSMENTS

- 6.1.1. Legionella and Scalding risk assessments are carried out by the Trust for all properties maintained by the Estates Department. For other properties where Trust staff may share accommodation or visit to deliver services it will be the responsibility of the landlord or lead organisation and we seek assurances that this is undertaken.
- 6.1.2. It should be noted that none of these 3rd party sites are inpatient or considered an augmented care setting.

6.2. LEGIONELLOSIS RISK ASSESSMENTS

- 6.2.1. A suitable and sufficient assessment is necessary to identify and assess the risk of exposure to Legionella bacteria from work activities and water systems on the premises and any necessary precautionary measures.
- 6.2.2. The risk assessments will be written using BS8580-1:2019 and the competent experienced risk assessor will assess sources of risk. A number of factors are required to create a risk of acquiring legionellosis, including, but not limited to:
- 6.2.2.1. the presence of Legionella bacteria;
 - 6.2.2.2. conditions suitable for multiplication of the organisms e.g. suitable temperature (20°C-45°C) and a source of nutrients e.g. sludge, scale, rust, algae and other organic matter;
 - 6.2.2.3. a means of creating and disseminating an aerosol containing legionella;
 - 6.2.2.4. the presence of people who may be exposed, especially where occupants, such as patients are particularly vulnerable.
- 6.2.3. The scoring matrix for Legionella risks therefore considers each stage:
- 6.2.3.1. Contamination,
 - 6.2.3.2. Amplification,
 - 6.2.3.3. Transmission,
 - 6.2.3.4. Exposure and
 - 6.2.3.5. Susceptibility of host
- 6.2.4. To identify and assess the risk the Trust has legionellosis risk assessments covering all Trust premises conducted by a Legionella specialist risk assessor. The risk assessments are managed as a living document and will be reviewed regularly as per paragraph 47 of the L8 ACOP.
- 6.2.5. As part of the risk assessment process a site survey of all the water systems in each building is carried out and includes an asset register of all associated plant, pumps, other relevant items and an up-to-date schematic drawing / diagram showing the layout of the plant or system, including parts temporarily out of use.

6.3. SCALDING RISK ASSESSMENT (*Never event*)

- 6.3.1. The risk of scalding from domestic hot water supplies in healthcare premises is well understood and is on the National Patient Safety Agency (NPSA) never events list. The highest consequence comes from total immersion during bathing but showering and hand wash basins are also considered.
- 6.3.2. There is a potential conflict between Legionella control measures and scalding protection, because high hot water temperatures are required to control Legionella, which exceed those with scalding potential. Furthermore, some scalding control measures, notably thermostatic mixing valves (TMVs) can increase colonisation by Legionella.
- 6.3.3. The scalding risk assessment will be contained within the Legionella risk assessment. Estates will maintain a generic scalding risk assessment approved by the WSG which to inform the location and type of TMVs to be fitted to outlets.

6.4. CONTROLLING THE RISK FROM EXPOSURE TO LEGIONELLA (WRITTEN SCHEME)

- 6.4.1. Where the risk assessment shows that there is a reasonable foreseeable risk and this cannot be totally eliminated, there should be a written scheme for controlling the risk from exposure by maintaining water systems to ensure they are fit for purpose and meet all legislation requirements by following the guidance in relevant documentation

6.4.2. This Scheme should specify measures to be taken to ensure that it remains effective. Monitoring and routine inspection forms part of the written scheme.

6.5. MONITORING AND ROUTINE INSPECTION (Water Contractor to manage)

6.5.1. The risk monitoring and routine inspection activities will be carried out, primarily, by the nominated water contractor(s).

6.5.2. Prevention and controlling the risk from exposure to Legionella bacteria is the most effective way to prevent cases arising. The predominant Legionella control measures in use in trust premises are maintained to a professional standard, temperature control, regular flushing and sampling for Legionella bacteria in high risk areas.

6.5.3. Monitoring and routine inspection forms part of the written scheme.

6.5.4. HTM 04 Part B and Part C gives guidance on when and how testing for Legionella should occur. Legionella analysis should be carried out at a UKAS accredited laboratory, in accordance with the Approved Code of Practice L8, and HTM04-01. The reporting procedure for any 'positives' received is illustrated in Appendix 1.

6.5.5. All monitoring shall be recorded with dates and signatures and held within the Legionella Logbook for the system.

6.5.6. The testing regime for domestic hot and cold water systems will be determined by the WSG. The results of other checks carried out under the written scheme and vulnerability of service users in each area will inform any microbiological testing.

6.6. DEALING WITH CONTAMINATION

6.6.1. Where Legionellae bacteria are detected within any plant and/or systems within properties under their remit, the RP will, in conjunction with the WSG, investigate accordingly in order to determine the cause of the contamination and identify and prioritise any remedial action required.

6.6.2. Where bacterial contamination is established e.g. through water quality tests, then the Associate Director of Estates and Facilities (RP), Estates Systems Manager (DRP) Infection Prevention and Control Team (IPCT) and External Water Safety Advisor shall be informed straight away for advice.

6.6.3. The detection of legionella bacteria in a system is not notifiable hence information relating to an event will therefore be contained within the Estates Team and WSG and actioned accordingly.

6.7. ACTION TO BE TAKEN ON SUSPICION OF AN INCIDENT, CLINICAL CASE OR OUTBREAK

6.7.1. In England and Wales, Legionnaires' disease is notifiable under the Health Protection (Notification) Regulations 2010. Under these regulations, registered medical practitioners must report cases of Legionnaires' disease to the Proper Officer. These regulations also require human diagnostic laboratories to notify PHE of cases of Legionnaires' disease identified by laboratory testing.

6.7.2. An outbreak is defined as two or more cases where the onset of illness is closely linked in time (weeks rather than months) and location and where there is epidemiological evidence of a common source of infection, with or without microbiological evidence.

6.7.3. An outbreak control team should always be convened to investigate outbreaks. It is the responsibility of the Proper Officer to declare an outbreak. The Proper Officer, appointed by the local authority, is often a consultant in communicable disease control (CCDC) within the local PHE centre health protection team.

- 6.7.4. If a healthcare-associated incident/outbreak of Legionella is suspected it should be reported to the Infection Prevention and Control Team (IPCT). The IPCT will inform the RP and a Major Outbreak Team will be convened in line with the Infection Prevention and Control Policy. The team will then determine the appropriate action for the trust to take and will liaise with the local consultant in health protection (Public Health England).
- 6.7.5. In practice the control measures which have been put into place and the reporting procedure for Legionella 'positives' shown in Appendix 1 should allow action to be taken to prevent the occurrence of an outbreak of Legionellosis.
- 6.7.6. The DRP shall ensure that any systems identified are safely isolated until a course of action has been agreed and ensure that the system is not drained or disinfected before samples have been taken.
- 6.7.7. The DRP's role will be an important one in guiding the various specialists to the water systems within the site.
- 6.7.8. The Major Outbreak Team will be responsible for identifying the cause of the infection and will advise on cleaning, disinfection and any engineering modifications that may be necessary. The team will also investigate any necessary changes to procedures to prevent reoccurrence.
- 6.7.9. Further reference to actions to be taken can be found in the trust's Infection Prevention and Control Policy which can be accessed via the trust website.

6.8. DESIGN OF NEW SERVICES, COMMISSIONING AND PROJECT HANDOVERS

- 6.8.1. The RP, DRP and Project Managers shall ensure that all major and minor capital schemes are designed to the relevant standards.
- 6.8.2. Particular emphasis should be given to ensure that stocks of water are not excessive. Current guidance varies between 12 and 24 hours, however the trust has concluded that 12 hours storage is sufficient, all future installations being designed to this level.
- 6.8.3. The relevant Project Manager shall ensure compliance of the design to the relevant standards and ensure that all new services are commissioned and chlorinated prior to the connection to existing systems.
- 6.8.4. The Project Manager shall also ensure that all 'as fixed' documentation is available at handover to ensure the 'operational team' can instigate the necessary maintenance schedules. No developments/refurbishments will be accepted for handover without the relevant operation and maintenance documentation.
- 6.8.5. Project Managers should ensure that the trust is not compromised by underused outlets and keep a record of the flushing schedule (at least weekly). Where possible, consideration should be given to the early use of biocides continually dosed into water systems during the construction phase to control the build up of bio film during this period of under usage.
- 6.8.6. The use of flexible hoses **shall be prohibited** in all new installations. There is evidence to suggest the use of non-Water Regulations Advisory Scheme (WRAS) approved EPDM hoses can encourage the proliferation of Legionella bacteria in occlusions with the walls of the hose. Final connections must therefore always be made with copper wherever possible.

6.9. ROUTINE OPERATIONAL MAINTENANCE

- 6.9.1. The following section details specific maintenance procedures necessary to protect all users from being affected from the Trusts' various building services.

6.9.2. The Planned Preventative Maintenance (PPM) System is the management tool for ensuring routine works are undertaken in an ordered manner.

6.9.3. The systems listed below are all susceptible to colonisation with Legionella bacteria and can have a detrimental effect on the wellbeing of service users, staff and visitors if they are not maintained to an adequate standard:

- 6.9.3.1. Domestic hot and cold water systems;
- 6.9.3.2. Swimming pools;
- 6.9.3.3. Fire-fighting systems;
- 6.9.3.4. Ventilation systems;
- 6.9.3.5. Any other water systems above 20° and below 50°C which may produce an aerosol

6.10. OPERATION AND MAINTENANCE

6.10.1. It is the responsibility of the respective Water Contractor to ensure that all the work detailed in this section and elsewhere as specifically noted within this policy is undertaken and that adequate records are retained for a minimum of five years as previously stated.

6.11. WATER SERVICES LOGBOOK (*Water Contractor to manage*)

6.11.1. The respective Water Contractor is responsible for maintaining and updating the logbook annually to reflect the current status on the respective sites for which they have the day to day responsibility of maintaining.

6.11.2. The logbook contains the following information and is pivotal to the management of the water systems and should be held electronically on a shared drive or SharePoint site:

- 6.11.2.1. Schematic drawings of all the water distribution systems;
- 6.11.2.2. Schedule of all cold water storage tanks;
- 6.11.2.3. Records of all cleaning, inspection and maintenance records;
- 6.11.2.4. Records of all water sampling;
- 6.11.2.5. Records of the Sentinel temperature monitoring scheme;
- 6.11.2.6. Records of cold water storage temperature tank monitoring;
- 6.11.2.7. Appropriate Risk Assessments;
- 6.11.2.8. Appropriate PPM schedules;
- 6.11.2.9. Schedule of mixing valves and their maintenance records
- 6.11.2.10. Legionella Policy

6.12. RECORDS

6.12.1. Records may be held electronically or as paper. All records should be signed by those performing the various tasks assigned to them. These records shall be retained for five years.

7. CONSULTATION

7.1. This policy has been developed by the Estates Systems Manager in consultation with the Estates Department, Health and Safety Manager and the Infection Prevention and Control Team and circulated to a selection of key individuals for comment.

8. TRAINING AND SUPPORT

8.1. Individuals to whom tasks have been allocated (supervisors and managers as well as operatives) need to have received adequate training in respect of water hygiene and microbiological control

appropriate to the task they are responsible for conducting. The training and competence assessment should be clearly defined and should include those responsible for simple housekeeping tasks such as outlet flushing and the cleaning of wash-hand basins, through to maintenance staff and up to individuals who define strategy and develop procedures.

- 8.2. It is important that any person working on water distribution systems or cleaning water outlets should have completed a water hygiene awareness training course so that they can gain an understanding of the need for good hygiene when working with water distribution systems and water outlets and of how they can prevent contamination of the water supply and/or outlets.
- 8.3. The WSG and those competent staff who are chosen to deputise for them will be provided with regular training and regular refresher training, which will be recorded on their personal training records so that they are properly updated on new developments in the management and control of water services. This also applies to outside contractors and consultants who may be responsible for parts of the control regime.
- 8.4. This training shall be reviewed at least annually to ensure that competent staff can fulfil the performance of their specific duties.
- 8.5. All managers responsible for trust buildings have a duty of care and must be given training in order that they are aware of known hazards and the safe precautions to adopt to ensure their sites are safe.
- 8.6. The trust recognises that only with the help of the entire site Departmental Managers can the WSG maintain a safe regime of care across the trust's sites.

9. MONITORING

- 9.1. This policy document shall be monitored for suitability by the WSG on a three yearly basis or following major changes to the legislation or guidance provided by the Health & Safety Executive through their ACOP and Technical Guidance documents; specifically, HSG274 and the Department of Health HTM04-01.

10. EQUALITY AND HUMAN RIGHTS ANALYSIS

10 Equality and Human Rights Analysis

Title: Water Safety Policy – Legionella and Other Waterborne Pathogens
Area covered: All Trust Premises
<p>What are the intended outcomes of this work? <i>Include outline of objectives and function aims</i></p> <p>Provide safe water services that are monitored and checked for Legionella and other waterborne pathogens</p>
<p>Who will be affected? <i>e.g. staff, patients, service users etc</i></p> <p>All staff, patients, service users, visitors and contractors working on our sites.</p>
Evidence
What evidence have you considered? The policy
Disability (including learning disability) Not engaged
Sex Not engaged
Race <i>Consider and detail (including the source of any evidence) on difference ethnic groups, nationalities, Roma gypsies, Irish travellers, language barriers. Not engaged</i>
Age <i>Consider and detail (including the source of any evidence) across age ranges on old and younger people. This can include safeguarding, consent and child welfare. Not engaged</i>
Gender reassignment (including transgender) <i>Consider and detail (including the source of any evidence) on transgender and transsexual people. This can include issues such as privacy of data and harassment. Not engaged</i>
Sexual orientation <i>Consider and detail (including the source of any evidence) on heterosexual people as well as lesbian, gay and bi-sexual people. Not engaged</i>
Religion or belief <i>Consider and detail (including the source of any evidence) on people with different religions, beliefs or no belief. Not engaged</i>
Pregnancy and maternity <i>Consider and detail (including the source of any evidence) on working arrangements, part-time working, infant caring responsibilities. Not engaged</i>
Carers <i>Consider and detail (including the source of any evidence) on part-time working, shift-patterns, general caring responsibilities. Not engaged</i>
Other identified groups <i>Consider and detail and include the source of any evidence on different socio-economic groups, area inequality, income, resident status (migrants) and other</i>

<i>groups experiencing disadvantage and barriers to access. Not engaged</i>
Cross Cutting <i>implications to more than 1 protected characteristic Not engaged</i>

Human Rights	Is there an impact? How this right could be protected?
Right to life (Article 2)	Not engaged
Right of freedom from inhuman and degrading treatment (Article 3)	Not engaged
Right to liberty (Article 5)	Not engaged
Right to a fair trial (Article 6)	Not engaged
Right to private and family life (Article 8)	Not engaged
Right of freedom of religion or belief (Article 9)	Not engaged
Right to freedom of expression Note: this does not include insulting language such as racism (Article 10)	Not engaged
Right freedom from discrimination (Article 14)	Not engaged

<i>Engagement and Involvement detail any engagement and involvement that was completed inputting this together.</i>
Not engaged

Summary of Analysis <i>This highlights specific areas which indicate whether the whole of the document supports the trust to meet general duties of the Equality Act 2010</i>
Eliminate discrimination, harassment and victimisation This is a policy that is concerned with the prevention of Legionnaires' disease. There have not been any equality issues identified and no adverse negative impacts noted..

Advance equality of opportunity Not engaged

Promote good relations between groups Not engaged

What is the overall impact? None

Addressing the impact on equalities

There needs to be greater consideration re health inequalities and the impact of each individual development /change in relation to the protected characteristics and vulnerable groups

Action planning for improvement No actions required.

Detail in the action plan below the challenges and opportunities you have identified. *Include here any or all of the following, based on your assessment*

- *Plans already under way or in development to address the **challenges** and **priorities** identified.*
- *Arrangements for continued engagement of stakeholders.*
- *Arrangements for continued monitoring and evaluating the policy for its impact on different groups as the policy is implemented (or pilot activity progresses)*
- *Arrangements for embedding findings of the assessment within the wider system, OGDs, other agencies, local service providers and regulatory bodies*
- *Arrangements for publishing the assessment and ensuring relevant colleagues are informed of the results*
- *Arrangements for making information accessible to staff, patients, service users and the public*
- *Arrangements to make sure the assessment contributes to reviews of DH strategic equality objectives.*

For the record

Name of persons who carried out this assessment: Andrew Pople/George Sullivan

Date assessment completed: 10th February 2020

Name of responsible Director: Michele McGee

Date assessment was signed: 10th February 2020

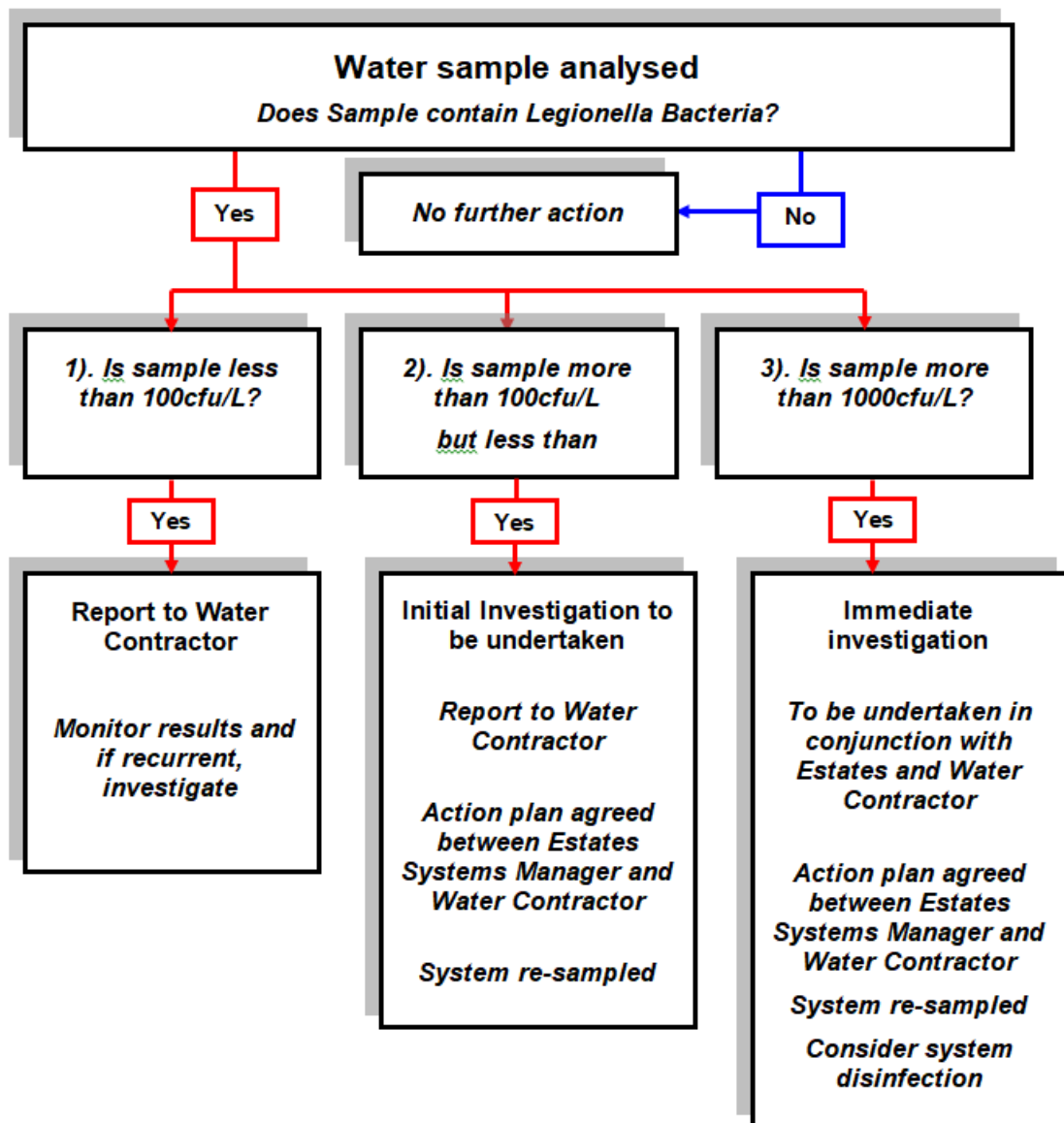
11. APPENDICES

11.1. APPENDIX 1 – FLOW CHART FOR REPORTING OF LEGIONELLA POSITIVES

11.1.1. This is the process to follow if a positive result is obtained following sampling for Legionella bacteria in hot and cold water systems.

11.1.2. Water samples are taken at 3 monthly intervals from sentinel outlets and one other outlet. The samples are sent to an accredited laboratory for analysis.

11.1.3. Legionella can exist in hot and cold water systems at very low levels and modern analysis techniques can detect below 100cfu/L (colony forming units per litre). The HSG274 advises that no action need to be taken for samples where Legionella bacteria is less than 100cfu/L. However, following discussions between Estates & Facilities, Infection Control and water contractor the following process will be adopted when Legionella bacteria have been detected.



11.1.4.

11.1.5. In all cases when a positive sample for Legionella has been reported the Estates Systems Manager will report to the IPCT and WSG.

11.1.6. Following investigation, remedial action shall be reported to the Estates Systems Manager who shall update the IPCT and WSG.

11.2. APPENDIX 2 - BIBLIOGRAPHY

11.3. GUIDANCE PUBLICATIONS

- 11.3.1. Legionnaires' disease – The Control of Legionella Bacteria in Water Systems. Approved Code of Practice and guidance on regulations L8 (Fourth edition) published 2013.
- 11.3.2. Legionnaires' disease Part 2: The control of legionella bacteria in hot and cold water systems HSG274 Part 2 Published 2014.
- 11.3.3. Legionnaires' disease: Technical guidance Part 3: The control of legionella bacteria in other risk systems HSG274 Part 3 Published 2013.
- 11.3.4. Health Technical Memorandum 04-01: Safe water in healthcare premises 2016
 - Part A: Design, installation and commissioning
 - Part B: Operational management
 - Part C: Pseudomonas aeruginosa – advice for augmented care units
- 11.3.5. Health Technical Memorandum 04-01: Supplement Performance specification D 08: thermostatic mixing valves (healthcare premises) 2017 edition.
- 11.3.6. Water quality – Risk assessments for Legionella control – Code of practice BS 8580-1:2019.

11.4. OTHER PUBLICATIONS

- 11.4.1. The Health and Social Care Act 2008 (Regulated Activities) Regulations 2014.
- 11.4.2. Care Quality Commission (Registration) Regulations (2009).
- 11.4.3. Water supply (water fittings) Regulation 1999.
- 11.4.4. The Water Supply (Water Quality) Regulations 2018.
- 11.4.5. The Management of Health and Safety at Work Regulations 1999.
- 11.4.6. Health and Safety at Work, etc. Act 1974.
- 11.4.7. Control of Substances Hazardous to Health Regulations 2002.

Action plan template

This part of the template is to help you develop your action plan. You might want to change the categories in the first column to reflect the actions needed for your policy.

Category	Actions	Target date	Person responsible and their area of responsibility
Monitoring			
Engagement			
Increasing accessibility			