

TRUST-WIDE NON-CLINICAL POLICY DOCUMENT

MANAGEMENT AND CONTROL OF LEGIONELLA BACTERIA IN WATER SERVICES

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2016 – Version 4

Quality, recovery and wellbeing at the heart of everything we do

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**MANAGEMENT AND CONTROL OF
LEGIONELLA BACTERIA IN WATER
SERVICES**

Further information about this document:

Document name	SA28 Management and Control of Legionella Bacteria in Water Services
Document summary	The purpose of this policy is to ensure that appropriate systems and procedures are in place to minimise the risk of Legionella 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 Control:

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Version 1		
Version 2		
Version 3	Presented to the Corporate Document Review Group for Approval	December 2013
Version 4	Presented to the Corporate Document Review Group for Approval	December 2016

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 vulnerable adults, including:

- being alert to the possibility of child/vulnerable adult abuse and neglect through their observation of abuse, or by professional judgement made as a result of information gathered about the child/vulnerable 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/vulnerable 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 vulnerable 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, gender, race, religion or belief, sexual orientation and transgender. The Equality Act also requires regard to socio-economic factors including pregnancy /maternity and marriage/civil partnership.

The trust is committed to equality of opportunity and anti-discriminatory practice 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 **Fairness, Respect, Equality Dignity, and Autonomy**

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1. PURPOSE AND RATIONALE

- 1.1 The purpose of this document is to provide a structured procedure and reporting schedule for the management and control of Legionellosis, including Legionnaires' disease, in compliance with all current guidelines and legislation.
- 1.2 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 about 40 species of the Legionella bacterium, the majority of cases are caused by *Legionella pneumophila* serogroup 1.
- 1.3 The incubation period is generally considered to be between two to 10 days. For Legionnaires' disease to occur, a number of the following criteria must be fulfilled:
 - a) An environmental reservoir;
 - b) Amplifying factors – the most important of these is an ambient water temperature of 20-45°C;
 - c) Dissemination – aerosols particle size of around 5-10µm;
 - d) The particular strain must be virulent;
 - e) Inhalation of the organism at an appropriate site, i.e., the lungs;
 - f) A susceptible host (increased risk in older people, those with diabetes, immunosuppression and heavy smokers).
- 1.4 It is a requirement under the Health and Safety at Work Act 1974 and the Control of Substances Hazardous to Health Regulations 2002 that organisations should take all reasonable precautions to prevent or control the harmful effects of contaminated water (i.e. Legionella) to its service users, staff and other persons working at or using its premises.
- 1.5 As laid down in the Health and Safety Executive's Approved Code of Practice (ACOP) L8, the trust will undertake to:
 - a) Identify and assess sources of risk;
 - b) Prepare a scheme for preventing, reducing or controlling risk;
 - c) Implement and manage precautions;
 - d) Keep records of the precautions implemented for each of the premises within the trust's control;
 - e) Appoint a person to be managerially responsible.

2. OUTCOME FOCUSED AIMS AND OBJECTIVES

- 2.1 To ensure the Trust commitment to managing the safety of water services
- 2.2 To ensure compliance with NHS guidance and legislation
- 2.3 To ensure compliance with NHS guidance and legislation

- 2.4 To define Roles and responsibilities of key staff
- 2.5 To provide information and guidance on the maintenance and refurbishment of trust premises in relation to water systems
- 2.6 To provide guidance on Risk Assessment of water systems
- 2.7 To provide guidance on training requirements

3. SCOPE

- 3.1 This policy applies to all employees and contractors in all trust premises and where Service Level Agreements (SLAs) are in place at premises the trust leases.

4. DEFINITIONS (Glossary of Terms)

Glossary of Terms	Definition
ACOP	Approved Code of Practice
COSHH	Control of Substances Hazardous to Health
CWS	Cold Water Service
EPDM	Ethylene Propylene Diene M-class Rubber
HGN	Health Guidance Notes
HSWA	Health and Safety at Work Act
HSE	Health and Safety Executive
HSS	High Secure Services (Ashworth Hospital)
HTM	Health Technical Memorandum
IPCT	Infection Prevention and Control Team
IPCC	Infection Prevention and Control Committee
SLA	Service Level Agreement
UKAS	United Kingdom Accredited Service
WRAS	Water Regulations Advisory Scheme
PPM	Planned Preventative Maintenance
DHW	Domestic Hot Water
BES Provider	Building and Engineering Services Provider – Trust Maintenance Contractor

5. DUTIES

5.1 General Responsibilities of the Employer (the Trust)

- (a) The trust as an employer has a general duty under the Health and Safety at Work Act 1974 2(1) to ensure; so far as is reasonably practicable, the health, safety and welfare of all their employees.
- (b) Health and Safety at Work Act 1974 (HSWA) 2(2) requires employers to:
 - i. Provide and maintain plant and systems of work that are safe and free from health risks;
 - ii. 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);

- iii. Provide such information, instruction, training and supervision as to ensure the health and safety at work of its employees (HSWA 2(2)c);
 - iv. Provide a safe working environment (HSWA 2(2)e).
- (c) Those in control of premises must ensure that they are safe and that any plan or substance does not endanger the health of all persons at work and the general public (HSWA 4).

5.2 **General Responsibilities of All Employees (the Staff)**

- 5.2.1 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 that of others who may be affected by their acts or omissions at work.
- 5.2.2 Towards this end, employees should use correctly all work items provided by their employers, in accordance with their training and the instructions they receive to enable them to use the items safely.
- 5.2.3 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.
- 5.2.4 Employers or those they appoint (e.g., under Regulation 6) 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.
- 5.2.5 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 Act and other statutory provisions can take such remedial action as may be needed.

5.3 **Specific Delegated Responsibilities (see Appendix 1)**

5.3.1 **Executive Director of Finance**

- (a) The Executive Director of Finance is the accountable officer for the trust and has 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.
- (b) The Executive Director of Finance shall:
 - i. Have overall responsibility for all aspects of the quality of water supplies within all the trust properties;
 - ii. Nominate in writing the Responsible Person and Deputy Responsible Person(s) with specific regard to Legionella precautions, ensuring such staff are suitably qualified;
 - iii. 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.

5.3.2 **Responsible Person (Director of Estates)**

- (a) In practice, the overall responsibility for the control of Legionella is delegated to the Responsible Person – the Director of Estates.

(b) The Responsible Person (Director of Estates) shall:

- i. Accept management responsibility for Legionella control;
- ii. With the assistance of the Legionella Control Team, prepare and implement an Operational Policy on Legionella control;
- iii. Put in place arrangements for reporting an outbreak or suspected outbreak of Legionella;
- iv. Audit precautions on the control of Legionella;
- v. Issue a compliance report to the Legionella Control Team - as requested, but at least on a yearly basis;
- vi. Assess the training needs for training of staff (including self) in control of Legionella;
- vii. Ensure personal training records are kept up to date;
- viii. Ensure record drawings of systems are available and kept updated;
- ix. Monitor the actions of the Deputy Responsible Person.

5.3.3 Deputy Responsible Person (Estates Systems Manager)

(a) The Deputy Responsible Person shall:

- i. Accept management responsibility for all the tasks described below and deputized management responsibility of all the tasks listed under the Responsible Person section in their absence;
- ii. Ensure Legionella Risk Assessments and two-yearly Legionella Risk Assessment Reviews are undertaken on all water systems and air conditioning plant;
- iii. Identify the required control measures and prioritise them according to the level of risk, implementing these measures where reasonably practicable;
- iv. Carry out remedial works highlighted during Risk Assessments (subject to the approval of adequate resources by the trust);
- v. Ensure records of Risk Assessments and associated precautions are implemented and maintained;
- vi. Liaise between suitable training establishments to provide approved courses on control of Legionella;
- vii. Monitor the actions of the Site Responsible Person;
- viii. Ensure the Responsible Person is kept informed of actions.

5.3.4 Site Responsible Person (BES Provider)

(a) The Site Responsible Person shall:

- i. Accept responsibility for all the tasks described below;

- ii. Undertake review annually and maintain Risk Assessments for all areas under their control;
- iii. 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;
- iv. Keep maintenance and monitoring records and make available for inspection as necessary. All written records are to be kept for five years and electronic records also to be kept for five years;
- v. Ensure that all sentinel outlets, tank temperatures and mixing valve maintenance is undertaken at the required intervals as specified within this document or within the agreed work procedures;
- vi. Ensure the Water Services Log Book for the site is reviewed annually and maintained to reflect the current position at all times;
- vii. Inform external bodies responsible for sewers before any chlorinated water is discharged into the drainage system;
- viii. Ensure all the requirements of the Maintenance Operational Procedural Requirements are complied with.

5.3.5 The Water Management Group

- (a) The Water Management Group is accountable to the Infection Prevention and Control Committee (IPCC).
- (b) The team shall comprise: Legionella Responsible Person and Deputy Responsible Person, Site Responsible Person(s), Infection Prevention and Control Nurse, Health and Safety Manager and Service Representatives.
- (c) The team's responsibilities shall include:
 - i. Ratification of appointment of people into positions of 'responsibility';
 - ii. Actions to be taken in case of a Legionella outbreak (the Health Protection Agency has defined an outbreak as where two or more confirmed cases of Legionella have occurred in the same locality within a six month period);
 - iii. Ratification of all relevant documentation, works specifications, Planned Preventative Maintenance (PPM) programmes, policies etc.;
 - iv. Monitoring and reporting upon the efficacy of all implemented PPM programmes and all other relevant procedures;
 - v. Monitoring and reporting upon the efficacy of, and appointing all contractors commissioned on, Legionella-related projects;
 - vi. Acting as liaison between all other associated teams, e.g. the IPCC (particularly in an outbreak situation);
 - vii. Monitoring and reporting upon the efficacy of all training programmes implemented for appropriate staff.

- (d) 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.

5.3.6 Departmental Managers, Ward Managers and Project Managers

(a) Departmental, Ward or Project Managers shall:

- i. Ensure that there is access to all water outlets, to enable regular usage;
- ii. Ensure that shower rooms, bathrooms and toilet areas are not used as storage rooms;
- iii. Report any water temperature problems, broken taps, showers or toilets to the BES Provider helpdesk on telephone number 0151 471 2206;
- iv. Report any areas of concern regarding under-usage of water outlets to either the BES Provider or Estates and Facilities on telephone number 0151 471 2206;
- v. Consider removal of any showers, sinks, wash hand basins, etc., that are not being used regularly;
- vi. 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 twice weekly.

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

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

(b) 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 projects manager.

6. PROCESS

The following procedural activities will be carried out, primarily, by the BES Provider or their nominated contractor(s) as part of the NEC3 Contract with the trust and is detailed here within to act as good practice and general guidance only.

6.1 Monitoring for Legionella in Areas of Risk (BES Provider to manage)

6.1.1 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 maintenance to a professional standard, temperature control, regular flushing and sampling for Legionella bacteria in high risk areas.

6.1.2 Some examples of monitoring are:

- Daily monitoring of the swimming pool chlorine levels at Ashworth Hospital;
- Regular monthly monitoring of the temperature of sentinel and other outlets and water storage vessels (throughout the trust).

- 6.1.3 All monitoring shall be recorded and held within the Legionella Log Book for the system.
- 6.1.4 Legionella sampling shall be undertaken 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 2.

6.2 Action to be Taken on Suspicion of an Incident or Outbreak

- 6.2.1 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 Responsible Person 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, the Health Protection Agency.
- 6.2.2 In practice the control measures which have been put into place and the reporting procedure for Legionella 'positives' shown in Appendix 2 should allow action to be taken to prevent the occurrence of an outbreak of Legionellosis.
- 6.2.3 The Deputy Responsible Person 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.
- 6.2.4 The Deputy Responsible Person's role will be an important one in guiding the various specialists to the water systems within the site.
- 6.2.5 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.
- 6.2.6 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.

6.3 Design of New Services, Commissioning and Project Handovers

- 6.3.1 The Responsible Person, Deputy Responsible Person and Project Managers shall ensure that all major and minor capital schemes are designed to the relevant standards.
- 6.3.2 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.
- 6.3.3 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.
- 6.3.4 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.
- 6.3.5 Project Managers should ensure that the trust is not compromised by underused outlets and keep a record of the flushing schedule (at least twice 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 accretion of bio film during this period

of under usage.

- 6.3.6 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 on any EPDM hose 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.

6.4 Routine Operational Maintenance

- 6.4.1 The following section details specific maintenance procedures necessary to protect all users from being affected from the trusts' various building services.
- 6.4.2 The Planned Preventative Maintenance (PPM) System is the management tool for ensuring routine works are undertaken in an ordered manner.
- 6.4.3 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:
- i. Domestic hot and cold water systems;
 - ii. Swimming pools;
 - iii. Fire-fighting systems;
 - iv. Ventilation systems;
 - v. Any other water systems above 20° and below 50°C which may produce an aerosol.

6.5 Operation and Maintenance

- 6.5.1 It is the responsibility of the respective Site Responsible Person (BES Provider) 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.

6.6 Water Services Log Book (BES Prover to manage)

- 6.6.1 The respective Site Responsible Person (BES Provider) is responsible for maintaining and updating the log book annually to reflect the current status on the respective sites for which they have the day to day responsibility of maintaining.
- 6.6.2 The log book 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:
- a) Schematic drawings of all the water distribution systems;
 - b) Schedule of all cold water storage tanks;
 - c) Records of all cleaning, inspection and maintenance records;
 - d) Records of all water sampling;

- e) Records of the Sentinel temperature monitoring scheme;
- f) Records of cold water storage temperature tank monitoring;
- g) Appropriate Risk Assessments;
- h) Appropriate PPM schedules;
- i) Schedule of mixing valves and their maintenance records;
- j) Legionella Policy

6.7 Tank Cleaning (BES Provider to manage)

- 6.7.1 The trust recognises a major defence to the production of Legionella is a programme of regular tank cleaning and disinfecting. Each tank shall be inspected at least once annually. If there is any visual contamination to either the water or the tank surface it shall be emptied and thoroughly cleaned and disinfected in accordance with BS6700. This applies to all water storage tanks irrespective of whether the water being stored is potable or not potable. This applies to any size of tank.
- 6.7.2 The Site Responsible Person shall ensure that he/she or the maintenance contractor visits all tanks at least once every year to ensure its suitability and compliance for the purpose that it is currently being utilised.
- 6.7.3 The Site Responsible Person shall ensure that a record of this inspection is kept in the Water Services Log Book on the tank schedule.
- 6.7.4 Drain off valves should be fitted at the lowest part of all tanks or cisterns to enable complete drainage. The inlet and outlet should be arranged to facilitate good tangential flow of water across the tank to reduce the possibility of stagnation.
- 6.7.5 As with potable water storage tanks, header tanks for Domestic Hot Water (DHW) should be fitted with a lockable lid and a screened vent and overflow. All tanks should have a Class A air gap as required by the Water Regulations Guide 16.
- 6.7.6 Each tank shall be uniquely identified. The schedule within the Water Services Log Book shall be annually reviewed and updated when situations change.
- 6.7.7 Risk Assessments must also be reviewed annually to ensure they take account of the current situation.

6.8 Chlorination (BES Provider to manage)

- 6.8.1 Chlorination should be carried out in accordance with BS6700 specification for the design, installation, testing and maintenance of services supplying hot water for domestic use and their curtilages.
- 6.8.2 Where a hot water system is to be disinfected by this procedure, the system must be allowed to cool prior to chlorination and the system must be vented adequately. For pressurised systems, specialist advice must be sought.
- 6.8.3 All visible dirt and debris shall be removed from the cistern. The cistern and distributing pipes shall be filled with clean water and then drained until empty of all water. The cistern shall then be filled with water again and the supply closed. A measured quantity of sodium hypochlorite solution of known strength shall be added to the water in the cistern to give a free residual chlorine concentration of 60mg/l in the water. The cistern shall be left to stand

for one hour. Each draw-off fitting shall then be successively opened, working progressively away from the cistern. Each tap and draw-off fitting shall be closed when the water discharged begins to smell of chlorine. The cistern shall not be allowed to become empty during this operation; if necessary, it shall be refilled and chlorinated as above. The cistern and pipes shall then remain charged for a further one hour.

6.8.4 The tap furthest from the cistern shall be opened and the level of free residual chlorine in the water discharge from the tap shall be measured.

6.8.5 If the concentration of free residual chlorine is less than 30mg/l the disinfection process shall be repeated.

6.9 **Pasteurisation (BES Provider to manage)**

6.9.1 There is no British standard for pasteurisation and so the following is recommended as a means of pasteurising the system.

6.9.2 Having ensured that the calorifier is vented, increase the temperature in the calorifier so that it is above 60°C. Draw water through the drain cock at a pasteurising temperature of 55°C to 60°C for two minutes (preferably longer). Hold the calorifier at temperature for one hour then, starting with the furthest outlet away, draw hot water through each tap and appliance sequentially at a pasteurising temperature. If the calorifier cannot produce water at the correct temperature, the procedure must be repeated.

6.9.3 If the hot water is at a pasteurising temperature initially, but the recovery of the calorifier is insufficient to maintain the water temperature, the procedure must be stopped, the calorifier held above 60°C for a further one hour and the procedure restarted at the outlets, which have not been pasteurised.

6.9.4 For the procedure to be effective, **all parts** of the system must reach a pasteurising temperature.

6.9.5 It is generally accepted within HTM04-01 that to undertake full system pasteurisation on large systems is not practical due to the large number of outlets and the inherent scalding risk that it presents to both staff and patients.

6.9.6 It is therefore the trust's intention to only pasteurise the plant on an annual basis and rely on the flushing regime and sentinel monitoring to ensure the control of Legionella.

6.9.7 All calorifiers should be fitted with destratification pump(s) the operation and effectiveness of which shall be confirmed. The direction of flow must always be from the flow outlet to the base of the calorifier.

6.9.8 Current guidance is that destratification pumps should only run for one hour per day. This running period should be at a time of low demand when the flow temperature is at the maximum achievable.

6.10 **Showers (Estates & Facilities / BES Provider to manage)**

6.10.1 Showers probably present the greatest risk to service users, staff, visitors and other persons on trust premises due to their ability to generate aerosols.

6.10.2 Showers should generally be installed with fixed type heads. Where flexible hoses are used to allow the shower head to be moved, the hose and head must be fixed in such a manner that will not allow the hose to be immersed in bath water.

- 6.10.3 Auto drain valves shall not be fitted to any shower mixer or any other type of mixing valve. Showers shall not be fitted with multi-jet heads as these can create stagnation problems.
- 6.10.4 Shower filters or filters for use with other water outlets which claim to remove Legionella bacteria shall not be used. They may be effective in the short term but may contaminate the system in the long term.
- 6.10.5 As showers are considered to be high risk to persons in the vulnerable category they must be used regularly. When they are deemed unnecessary they should be removed, by a competent person to ensure that no 'dead-legs' remain.

As with all underused outlets, underused showers should be flushed twice weekly. If a shower is not used regularly consideration should be given to removing it from the system.

6.11 Temporary Ward/Departmental Closures

- 6.11.1 When water outlets are not going to be used for more than five days due to temporary closure, the Site Manager, Ward Manager or Capital Project Manager must ensure that all outlets are flushed twice weekly. A record of the flushing regime must be maintained.
- 6.11.2 For wards which are being upgraded or refurbished, if occupation is not to occur within five days of practical completion, the flushing schedule must continue until re-occupation, when normal procedures will be reintroduced. A record of the flushing schedule must be kept.
- 6.11.3 During de-commissioning of buildings it is essential that the flushing regime is maintained.

6.12 Mixing Valves (BES Provider to manage)

- 6.12.1 All mixing valves shall be maintained in accordance with manufacturer's instructions. To comply with the latest Health Guidance Note (HGN) and ensure that integral safety devices are functioning satisfactorily, mixing valves in use for hot and cold water services should be inspected at least every six months.
- 6.12.2 On major refurbishment schemes it is recommended that combined mixing valves/taps should be fitted and the mixing valve should not be installed servicing more than one outlet.

6.13 Sentinel Hot and Cold Water Temperature Monitor (BES Provider to manage)

- 6.13.1 A monthly check of hot and cold water temperatures shall be in place to confirm that:
- Hot water arrives at the sentinel tap or the inlet to the mixing valve at no less than 50°C within one minute;
 - Cold water should be below 20°C after running the sentinel taps for two minutes;
 - Calorifier flow and return temperatures, at minimum temperatures of 60°C and 50° respectively.
- 6.13.2 The results of the tests shall be recorded in the Water Services Log Book and shall be retained for a minimum of 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. The Specialist Learning Disabilities (SLD) Division has also been consulted.

8. TRAINING AND SUPPORT

- 8.1 The Legionella Control Team and those competent staff who are chosen to deputise for them will be provided with regular training so that they are properly updated on new developments in the management and control of water services.
- 8.2 This training shall be reviewed at least annually to ensure that competent staff can fulfil the performance of their specific duties.
- 8.3 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. The trust recognises that only with the help of all the site Departmental Managers can the Legionella Control Team 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 Infection Prevention and Control Committee on a three yearly basis or following major changes to the legislation or guidance provided by the Health & Safety Executive through their Technical Guidance documents; specifically HSG274 - Part 1 - Cooling Towers, Part 2 - Hot & Cold Water Systems or Part 3 - Other Risk Systems.

10. EQUALITY AND HUMAN RIGHTS ANALYSIS

10 Equality and Human Rights Analysis

Title: Policy for the Management and Control of Legionella Bacteria in Water Services
Area covered: All Trust Premises

What are the intended outcomes of this work? <i>Include outline of objectives and function aims</i> Provide safe water services that are monitored and checked for Legionella
Who will be affected? <i>e.g. staff, patients, service users etc</i> All staff, patients, service users and visitors

Evidence
What evidence have you considered? The policy
Disability (including learning disability) Not engaged
Sex Not engaged
Race. Not engaged
Age. Not engaged
Gender reassignment (including transgender). Not engaged
Sexual orientation Not engaged
Religion or belief Not engaged
Pregnancy and maternity. Not engaged
Carers. Not engaged
Other identified groups. Not engaged
Cross Cutting Not engaged

Human Rights	Is there an impact? How this right could be protected?
Right to life (Article 2)	No issues identified within discussions.
Right of freedom from inhuman and degrading treatment (Article 3)	No issues identified within discussions.

Right to liberty (Article 5)	No issues identified within discussions
Right to a fair trial (Article 6)	No issues identified within discussions.
Right to private and family life (Article 8)	No issues identified within discussions.
Right of freedom of religion or belief (Article 9)	No issues identified within discussions.
Right to freedom of expression Note: this does not include insulting language such as racism (Article 10)	No issues identified within discussions.
Right freedom from discrimination (Article 14)	No issues identified within discussions.

Engagement and Involvement *detail any engagement and involvement that was completed inputting this together.*

Summary of Analysis

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

Promote good relations between groups

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

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Action planning for improvement

Detail in the action plan below the challenges and opportunities you have identified.

No actions required.

For the record

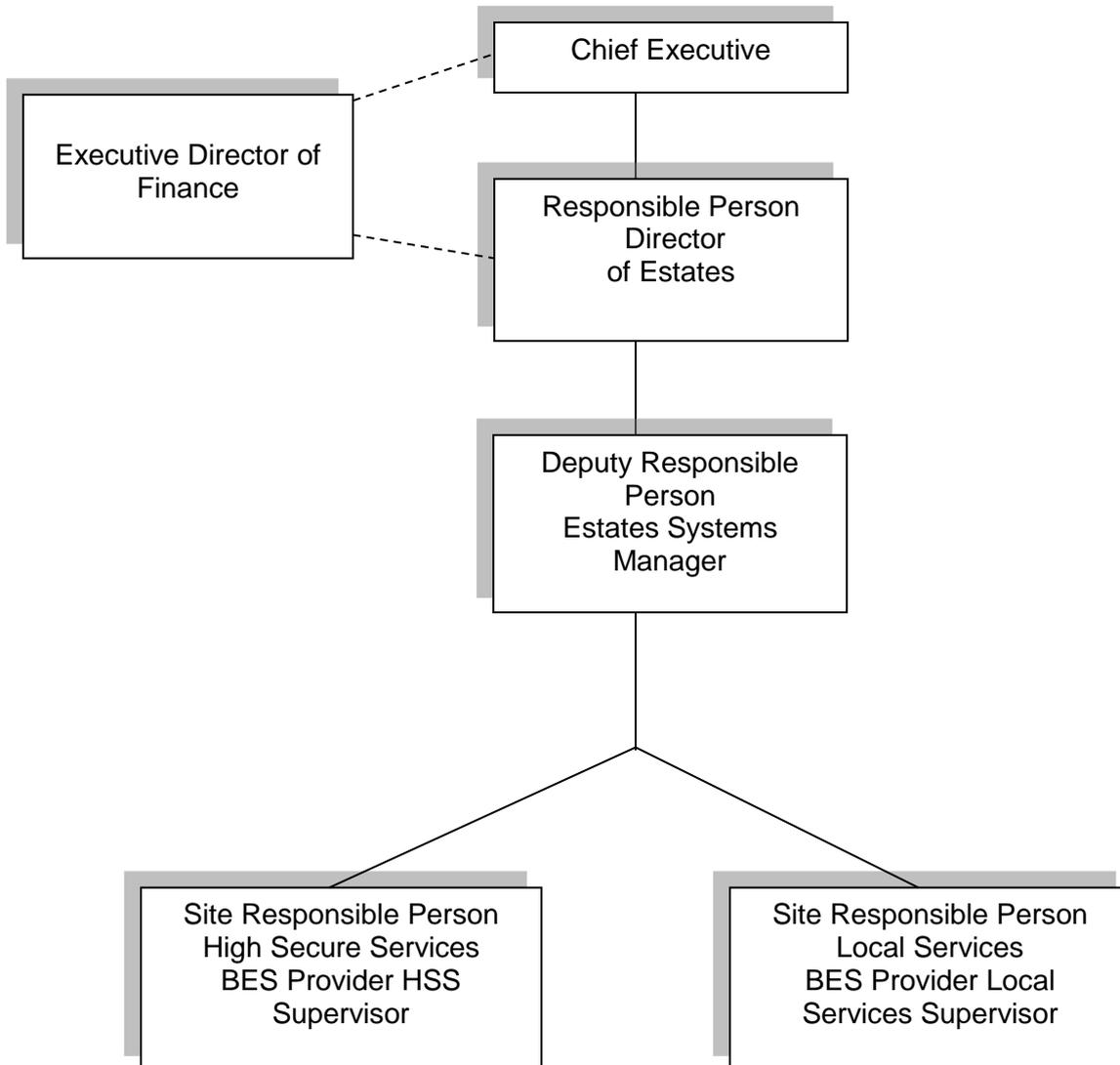
Name of persons who carried out this assessment: Andrew Pople/George Sullivan

Date assessment completed: 25th October 2016

Name of responsible Director: Alison Jordan / Neil Smith

Date assessment was signed: 31st October 2016

11. APPENDIX 1 – DELEGATED RESPONSIBILITIES FOR THE CONTROL OF LEGIONELLA BACTERIA WITHIN MERSEY CARE NHS TRUST

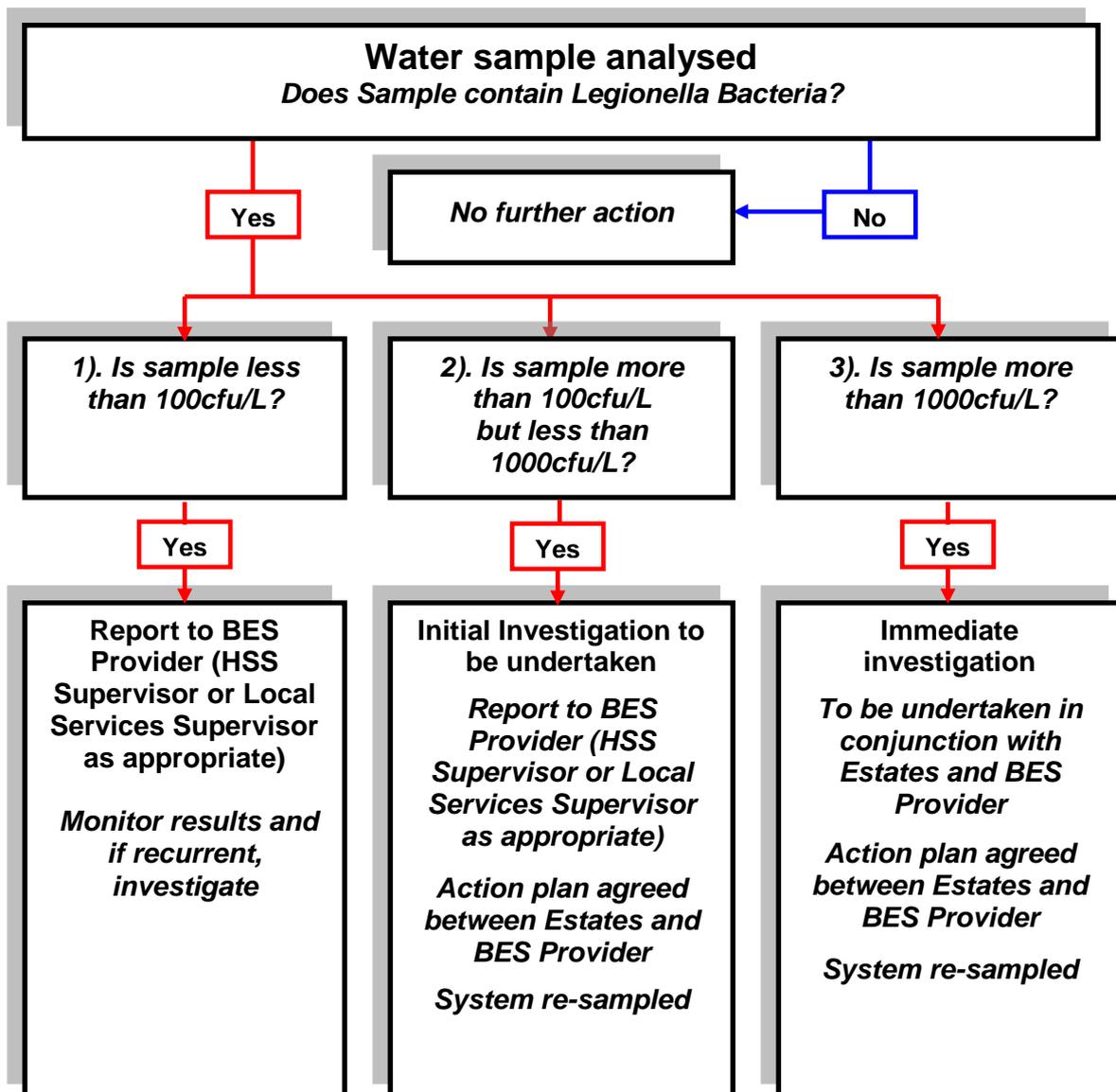


12. APPENDIX 2 – FLOW CHART FOR REPORTING OF LEGIONELLA POSITIVES

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

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.

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 Approved Code of Practice (ACOP) advises that no action need to be taken for samples where bacteria is less than 100cfu/L. However, following discussions between Facilities, Infection Control and maintenance contractor the following process will be adopted when Legionella bacteria have been detected.



In all cases when a positive sample for Legionella has been reported the Estates Department will report to the IPCT. Following investigation, remedial action shall be reported to Corporate Estates & Facilities who shall update the IPCT.