Draft scope for the guideline: water management for healthcare microbiologists

The consultation on the draft scope ran from 16 April to 14 May 2024

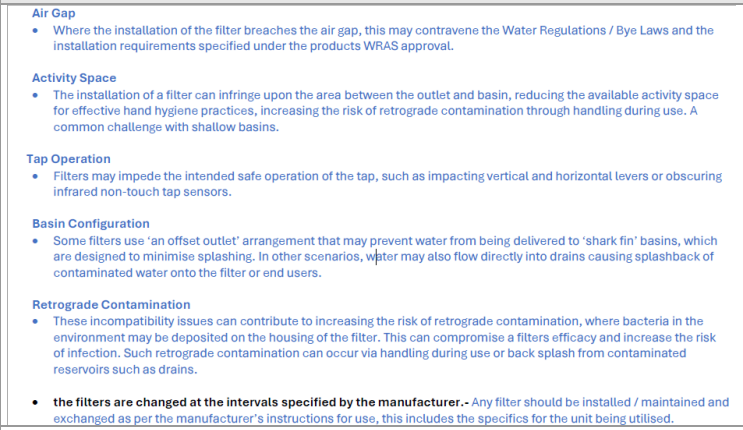
Stakeholder	Section	Comments	Working party response
General			
Anonymised at the stakeholder's request	General	Is there a section on endoscopy RO water sampling and approach to management of results/potential outbreaks post – endoscopy?	The guideline scope will not include endoscopy reverse osmosis (RO) units, although the working party report may signpost other guidance in this area
Anonymised at the stakeholder's request	General	Add drinking water outlets	The guideline scope will include drinking water outlets
Anonymised at the stakeholder's request	General	Add ornamental water features	The guideline scope will not include ornamental water features
Nick Hill, Water Quality London Ltd	General	One should consider whether the document should include a section on water sampling strategy, plans, sampling technique, choice of laboratory, testing and interpretation of results.	The guideline scope will not include the aspects referred to in the comment, although the working party report may signpost other guidance in this area
Toong Chin, Warrington and Halton Hospitals	General	Would appreciate if the group could also provide guidance on the commissioning and ongoing management of hospital pool waters (such as birthing pools, hydrotherapy) relating to commissioning, microbiological testing, interpretation of	The guideline scope will not include hospital pool waters, although the working party report may signpost other guidance in this area

Stakeholder	Section	Comments	Working party response
NHS Foundation Trust		results, risk assessment, control measures, and remediation options.	
UK Health Security Agency	General	The priorities need re-ordering: 1. How to use guidance and develop a risk-based approach to water wastewater safety 2. What should be on the agenda of the water safety group? 3. New build major refurbishment- how to proceed, what are the risks, water free care, wetting of water systems, commissioning of water systems 4. The periphery of the water system – Common water and wastewater risks in the built environment and potential mitigations 5. How to conduct a periphery of the water system risk assessment 6. Surveillance of water wastewater borne infections (clinical and environmental) 7. Overview of water systems and control methodologies 8. Clinical hand wash stations 9. Point of use filters – when to use, how to select, how to install correctly, how to maintain	The suggested changes have been made
1. How to use guidance and develop a risk-based approach to water wastewater safety – the requirement to move away from guidance and compliance to a risk based approach. This will also show how to establish water safety groups and water safety plans appropriately. It will also prepare organisations where they have a new build process to establishment of a project water safety group.			
Anonymised at the	1.	This is crucial to allow local risk assessment to address local issues. This will allow the limited hospital resources to be	Thank you for this comment in support of the proposed priorities

Stakeholder	Section	Comments	Working party response
stakeholder's request		directed towards areas of need to ensure water safety in the most at risk areas.	
Anonymised at the stakeholder's request	TOPIC 1	Potential danger of overlapping with HTM and Legionella ACOP, which could be confusing/challenging. The scope of this topic may benefit from tightening before evidence synthesis	The working party is aware of the publication of the NHS Estates Technical Bulletin (NETB) No.2024/3 on designing safe spaces for patients at high risk of infection from nontuberculous mycobacteria (NTMs) and other waterborne pathogens. The working party will take this into account and the working party report may signpost this and other guidance in this area
Natasha Ratnaraja, Royal College of Pathologists	1. How to use guidance and develop a risk-based approach to water wastewater safety	This is an important topic with many implications for all areas of the built hospital environment and this guidance is welcomed.	Thank you for this comment in support of the proposed priorities
Pat Cattini, University Hospitals Sussex	1	Agree risk based approach should be promoted rather than blindly following guidance to tick boxes for compliance.	Thank you for this comment in support of the proposed priorities
UK Health Security Agency	Section 1	How to use guidance and develop a risk-based approach to water wastewater safety • Is this title incorrectly worded? Should there be an 'and' between water and wastewater?	Thank you for this comment in support of the proposed priorities. The typographical error highlighted in the comment has been corrected

Stakeholder	Section	Comments	Working party response
		• agree a risk based approach that provides practice advice and supports implementation of water safety plans and mechanisms will be useful.	
2. Clinical hand wash stations – where to place/not to place, mitigating splash risks, how to choose a sink and an outlet, how to arrange items at a clinical hand wash station.			
Anonymised at the stakeholder's request	2.	Is some of this not covered elsewhere in the HBN's that we could refer to? Would stress important of keeping sinks clear of soap bottles, equipment etc.	Where there is overlap between topics to be included in the guideline and existing guidance such as Health Technical Memoranda (HTMs) and Health Building Notes (HBNs) the working party will take the other guidance into account. However, this topic is not sufficiently covered by existing HTMs and HBNs to simply cross-refer to them
Catherine Whapham, Water Hygiene Consultant	2. Clinical hand wash stations – where to place/not to place, mitigating splash risks, how to choose a sink and an outlet, how to arrange items at a clinical hand wash station.	Suggest to extend scope to include showers. Showers are underused and high water hygiene risk outlets Suggest to extend scope to include best cleaning practice	The guideline scope has been revised to clarify that it covers water outlets in general, including showers, and aspects related to cleaning and maintenance

Stakeholder	Section	Comments	Working party response
Jim Gray, Birmingham Women's & Children's NHS Foundation Trust	2	Could the guidance include something on showers in clinical areas as well? E.g. types of shower hose, schedules of replacement, shower drainage?	The guideline scope has been revised to clarify that it covers water outlets in general, including showers
Jim Perry, T-safe UK Ltd	2. Clinical hand wash stations	Clinical hand wash stations should be selected, reviewed and installed as per **HTM:04-01 Part A – Section 4.23**: During design and installation, it is necessary to ensure that: • they comply with all appropriate regulations and meet EU legislation on the preparation of foodstuffs for infants and young children; • tap outlets have appropriate fittings for attachment of filters; • sufficient activity space between the filter outlet and the basin is provided so that an effective backflow prevention air gap (AUK3) is maintained, and hands can be comfortably washed without contaminating the body of the filter; • there is sufficient flow once a filter has been fitted to enable effective handwashing; • the filters are changed at the intervals specified by the manufacturer. Guidance should also be taken from **Health Building Note (HBN) 00-10: Part C – Sanitary assemblies.** T-safe design, manufacture and supply Medical Grade Water Filters, which are specifically designed and validated for use as an infection control measure in high-risk healthcare settings, along with other settings where the water quality within a building has the potential to be comprised, as the units are a reliable barrier to the release of opportunistic waterborne pathogens, thus we are able to comment on the highlighted narrative above. • **tap outlets have appropriate fittings for attachment of filters;** - This will allow for the correct type of Point of Use Filter (POUF) to be installed as and when required, selecting the correct outlet will assist in ensuring that you have the right adaptor for the POUF for when the occasion arises. • **sufficient activity space between the filter outlet and the basin is provided so that an effective backflow prevention air gap (AUK3) is maintained, and hands can be comfortably washed without contaminating the body of the filter & there is sufficient flow once a filter has been fitted to enable effective handwashing; -** The implications of installing the incorrect filter to a wash basin can be significant, the consequences of which may be detrimental to end user safety, impede the operation of the outlet or contravene Water Regulations/ Bye Laws. Ultimately, compatibility of the filter with the outlet and basin is key to ensuring this is avoided.	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required

Stakeholder	Section	Comments	Working party response
Jim Perry, T-safe UK Ltd	2. Clinical hand wash stations		The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required
Natasha Ratnaraja, Royal College of Pathologists	2. Clinical hand wash stations	It would be useful to know how many hand wash stations are required per bay/ward/bedspace etc, minimum size of sink. Positioning of sink drain in relation to outlet. Presumably how to arrange items at a handwash station is about hand towels and handwash and gels? Consideration for handwash stations and showers (these need to be part of the guidance) for use in mental health facilities because of the ligature risk, toilets lids etc.	This will be covered as part of the guideline topic related to risk assessment. Additionally the guideline scope has been revised to clarify that it covers water outlets in general, including showers. The considerations highlighted in the comment in relation to mental health facilities will also be addressed
Pat Cattini, University Hospitals Sussex	2	CHWB would like to see a list of what is acceptable and what is not. Recommended/ model layout. Positioning of basins e.g away from patient, not in patient bedspace/ room. Not in clinical drug prep area etc	This will be covered as part of the guideline topic related to risk assessment
UK Health Security Agency	Section 2	Agree this is a very important consideration in health and is a priority inclusion in this guideline. We recognise that healthcare settings are the primary focus of this guideline,	Thank you for this comment in support of the proposed priorities. The scope has been revised to clarify that covers all health and care settings

Stakeholder	Section	Comments	Working party response
		could consideration be given to developing general principles on water management for care settings? Important but there are other sinks that could harbour pathogens (e.g. kitchens; shower rooms (and showers). Preventing contamination/colonisation of drains and outlets important to highlight. Installing a sink design that minimises/prevents splash-back could still pose a risk if not maintained appropriately. Also, identifying an environmental reservoir does not necessarily translate to risk - how transmission from sink to patient could or has occurred has not yet been established – potential routes of transmission and how to mitigate would be useful to highlight.	This will be covered as part of the guideline topic related to risk assessment
3. What should be on the agenda of the water safety group?			
Anonymised at the stakeholder's request	3.	Would be useful but not essential. Agenda to include: Trust wide risks, local risks (for example presence of an ice machine in a cardiac theatre where there is a clinical need but an associated water risk). National legislation/important information (such as the mycobacteria prevention of future deaths report). Ability of organisation to deliver technical elements of water safety. Really important to include clinical colleagues and not limit to estates, micro, IPC & health and safety.	Thank you for this comment in support of the proposed priorities. The guideline scope has been revised to clarify that this section will focus on how water safety groups should ensure water safety
Natasha Ratnaraja, Royal College	3. What should be on the agenda of the	Need to ensure that the water surveillance is reviewed with a schedule of testing, pre and post flushing results if applicable, temperature monitoring, chlorine dioxide levels if in use in	The guideline scope has been revised to clarify that this section will focus on how water safety groups should ensure water safety. Some of the specific considerations referred to in the comment will be covered under other

Stakeholder	Section	Comments	Working party response
of Pathologists	water safety group?	the water system, maintenance of outlets, flushing regimens per area. Review of out of scope results.	sections of the guideline (for example, surveillance of water- and wastewater-borne infections)
Pat Cattini, University Hospitals Sussex	3	Water safety group, need to ensure there s an appropriate register/log of issues with action planning to ensure issues identified are not just accepted/ignored!	The guideline scope has been revised to clarify that this section will focus on how water safety groups should ensure water safety
UK Health Security Agency	Section 3	• Suggest this is consistent with Health Technical Memorandum 04-01: Addendum • Ensuring correct interpretation of data – what do the results from the lab mean. If a potential issue identified how to mitigate without increasing risks elsewhere (e.g. increasing the risk of organism A by attempting to control organism B)	The working party is aware of the publication of the NHS Estates Technical Bulletin (NETB) No.2024/3 on designing safe spaces for patients at high risk of infection from nontuberculous mycobacteria (NTMs) and other waterborne pathogens. The working party will take this into account and the working party report may signpost this and other guidance in this area. The second part of the comment will be covered under the section on risk assessment
4. Surveillance of water wastewater borne infections (clinical and environmental) - how to do, which organisms, what baselines,			
Amir Hossein Akbari Aghababa, Islamic Azad University, Tehran, Iran	Surveillance of water wastewater-borne infections (clinical and environmental)	1-Vaccinations: Prioritize vaccination of high-risk groups to protect them from preventable infectious diseases. 2-Nutritional and Medical Support: Using probiotics and boosting people's immune system 3-Waste Management: Making a waste bin to dispose of waste materials in order to prevent contamination 4-Ensuring Safe Drinking Water:	The aspect of the comment that refers to water sampling will be covered under the section on surveillance of water- and wastewater-borne infections. The other aspects raised in the comment will not be included in the guideline scope

Stakeholder	Section	Comments	Working party response
		Screening water and boiling water and using antioxidants available for people in that area 5-sampling: Sampling of water by microbiologists and identification of organisms to prevent the spread of gram-negative bacteria and viruses * Bacteria: E. coli, Salmonella, Shigella, V.chlorea * Viruses: Enteroviruses, Hepatitis A * Parasites: Giardia, Cryptosporidium The source of all this contamination is from the microbiology of the air to the bacteria that infiltrate the soil with rain, and the spore-bearing bacteria in the soil.	
Anonymised at the stakeholder's request	4.	Vital to be included.	Thank you for this comment in support of the proposed priorities
Anonymised at the stakeholder's request	4	Please include clear guidance/pathway on the approach to management of water samples with growth of Legionella spp vs pathogenic Legionella ie Legionella pneumophila.	This will be included in the guideline scope with reference to existing guidance where relevant
Anonymised at the stakeholder's request	4	Please include clear guidance pathway on the approach to management of water samples with growth pf Pseudomonas aeruginosa/Mycobacterium spp/other pathogens	This will be included in the guideline scope with reference to existing guidance where relevant
Anonymised at the	TOPIC 4	This topic will be helpful as guidance on when to suspect, how to test and what to do with the results is a current gap	Thank you for this comment in support of the proposed priorities

Stakeholder	Section	Comments	Working party response
stakeholder's request			
Anonymised at the stakeholder's request	4 - general	Add management of findings, especially wastewater.	This will be included in the guideline scope with reference to existing guidance where relevant
Jim Gray, Birmingham Women's & Children's NHS Foundation Trust	4	I think it would be really useful to include in the scope what to do in the event of surveillance identifying a problem. Most particularly what is the evidence for the effectiveness of different drain disinfectant products?	This will be included in the guideline scope with reference to existing guidance where relevant. However, the guideline is unlikely to refer to specific products and instead will provide a general framework covering potential mitigations
Natasha Ratnaraja, Royal College of Pathologists	4. Surveillance of water wastewater borne infections (clinical and environmental)	Organisms and baselines are very important, clear guidance on what and when to monitor would be useful. When to act on TVCs, environmental results. When to request water testing if for example, pseudomonas bacteraemia is isolated from an inpatient (augmented and non-augmented care units). When to send away for typing, saving of isolates. When to report to ICB/UKHSA. Incident meeting advice would be useful i..e when to call one as there is likely a lot of variation across trusts at the moment.	This will be included in the guideline scope although some of the specific considerations referred to in the comment will be covered under other sections of the guideline (for example, risk assessment and how water safety groups should ensure water safety)
Pat Cattini, University Hospitals Sussex	4	Surveillance: would like to see emphasis on remote monitoring of systems rather than testing, to monitor continuous use and temp and therefore be able to direct attention to low use outlets or temp fails. Testing needs to include non-augmented care	Remote monitoring will be included under the guideline section on control methodologies

Stakeholder	Section	Comments	Working party response
UK Health Security Agency	Section 4	Surveillance of water wastewater borne infections (clinical and environmental) • Is this title incorrectly worded? Should there be an 'and' between water and wastewater? • Agree this would be useful but not a high priority as the most serious of these are notifiable conditions (NOIDS) already under surveillance. • Wastewater: there needs to be a standardised approach for assessing contamination of wastewater systems which is currently lacking especially sampling methods • Would think surveillance of waste water borne infections would be very difficult. Environmental surveillance to detect target pathogens in water and wastewater easier but resource intensive so the what and the how important but also when – how frequently should sampling be carried out? Determining baseline also important – more work needs to be done in this area. What's normal and how should environmental results be interpreted – particularly in the context of a risk-based approach? Zero tolerance may not be practicable. • Also who (which lab(s)) – how to ensure testing protocol appropriate?	The guideline scope will include the aspects referred to in items three and four of the comment. The typographical error highlighted in the comment has been corrected
5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.			
Anonymised at the	5.	Some of this will be dictated by local risk assessment and policy. Maybe provide as points to consider.	This will be included in the guideline scope

Stakeholder	Section	Comments	Working party response
stakeholder's request			
Catherine Whapham, Water Hygiene Consultant	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	Unless this scope is specifically for the "periphery" of the water system, suggest to extend scope to encompass Physical and Chemical Control Measures (Filtration, UV, thermal shock, flushing, various biocides).	The aspects referred to in the comment will be covered under the section on control methodologies
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	**What does guidance tell you about Point of Use Filter (POUF) utilisation.** **HSG274 Part 2:** **HSG274 Part 2 - Point of Use (POU) filters (Also appears in table 2.1 – checklist for hot and cold water systems):** *2.117 POU filters prevent the discharge of planktonic legionella and other potentially pathogenic microorganisms (bacteria and parasites) from the tap and shower outlets. They should be used primarily as a temporary measure until a permanent safe engineering solution is developed, although long-term use of such filters may be needed in some healthcare situations. They may also be considered where high level of disinfection of water systems may dislodge biofilm. Where POU filters are fitted, they should be renewed and replaced according to the manufacturer's recommendations.* **HSG274 – Special considerations for healthcare and care homes** *2.162 Where considered necessary for ongoing patient management, POU filters should be used primarily as a temporary control measure while a permanent safe engineering solution is developed, although long-term use of such filters may be required in some cases.* **HTM:04-01 Part A:** **Definition of a Point-of-use (POU) filter as per the Glossary** - *Point-of-use (POU) filter – a filter with a maximal pore size of 0.2µm applied at the outlet, which removes bacteria from the water flow.* **HTM:04-01 Part A - Water treatment and control programmes for hot and cold water systems:** ***4.1** When control of the microbiological safety of water systems cannot be achieved throughout the system by maintaining temperatures, additional control strategies should be considered to reduce the risk of waterborne infection. Commonly used strategies include the use of filtration, pasteurisation or the use of biocides. Any biocide added to a water system should be dosed at the lowest concentration required to protect patient safety and ensure no undue exposure of individuals to harmful concentrations (refer to the COSHH Regulations 2002).*	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required

Stakeholder	Section	Comments	Working party response
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	***4.22*** *For pathogenic waterborne organisms including multi-drug-resistant strains, at a minimum, and in accordance with the organisation's water safety plan, a risk assessment should be made in order to determine whether sterilising-grade point-of use filters should be installed or whether taps need to be changed (see American Standard Test Method (ASTM) F838-05 – 'Determining bacteria retention of membrane filters utilised for liquid filtration').* ***4.23*** *During design and installation, it is necessary to ensure that:* *• they comply with all appropriate regulations and meet EU legislation on the preparation of foodstuffs for infants and young children;* *• tap outlets have appropriate fittings for attachment of filters;* *• sufficient activity space between the filter outlet and the basin is provided so that an effective backflow prevention air gap (AUK3) is maintained, and hands can be comfortably washed without contaminating the body of the filter;* *• there is sufficient flow once a filter has been fitted to enable effective handwashing;* *• the filters are changed at the intervals specified by the manufacturer.* ***4.24*** *In systems with high particulates, a prefilter may be necessary to prevent shortened lifespan due to filters clogging.* **HTM:04-01 – Healthcare – Sensor tap guidance:** ***3.*** *Automatic taps (timed flow) can be considered as a result of a risk assessment and should be specified as appropriate for the conditions of use, either type 2 or 3. If the temperature is non-user adjustable, they should be supplied via a type 2 or 3 TMV set to 39–40°C. The sensors should include a timer that can be adjusted to take account of the optimum washing time: this is particularly for scrub sinks. Sensors should be offset or positioned such as to reduce the risk of accidental contamination of the outlet and be positioned so that POU filters can be used. Facilities for overriding the sensors will be necessary. When a duty cycle setting exists, it should be activated to avoid stagnation. (If there is more than one tap/outlet, e.g. in the case of scrub sinks, then all should deliver water to avoid stagnation.)*	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	**HTM:04-01 - Part B:** **HTM:04-01 - Part B - Description of systems, operational considerations and requirements** • ***7.45*** *Point-of-use (POU) filtration should be considered and agreed by the WSG only as an interim safeguard where control measures have been ineffective, prior to and during engineering remedial works, during periods of plumbing refurbishments and maintenance works, and where additional protection is required for vulnerable patients. Continuous long-term use of POU filters is not recommended, except where there is no effective alternative. The WSG should review their continued use and ensure an action plan is created and enacted to make certain they are changed at the intervals specified by the manufacturer.* • ***7.46*** *Where POU filters are installed as a temporary measure while appropriate remedial work is carried out, they should be changed in accordance with the manufacturers' recommendations, typically at least once a month. Once removed for whatever reason, a replacement filter should be fitted. When changing filters, it is recommended that sampling of water quality takes place at outlets identified as sentinel points before refitting a replacement filter. It is essential to ensure that – where filters are to be used – they are constructed of the appropriate materials (**see paragraph 3.1 in HTM 04-01 Part A**).* • ***7.47*** *Where POU filters are to be used, the backflow protection requirements need to be maintained in accordance with the **Water Supply (Water Fittings) Regulations 1999**. This may require additional backflow protection or modification of the system. In addition, sufficient activity space should be maintained to enable the outlet to be used without contaminating the filter.* • ***7.48*** *Where filters are in place, follow manufacturers' instructions for cleaning, or they should be wiped clean as part of the basin/sink cleaning protocol as agreed by the WSG.* • **7.49** Where point-of-use filters are no longer required, the outlet connection should be flushed, cleaned and disinfected to remove any accumulated biofilm • ***8.6*** *Ice machines should not be placed in augmented care units. Where ice is needed for treatment purposes, it should be made using water obtained through a microbiological POU filter or boiled water in sterile ice trays or ice bags.*	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required

Stakeholder	Section	Comments	Working party response
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	***HTM:04-01 - Part B - Testing for P. aeruginosa*** *POU filters, where they can be fitted, may be used to provide water free of P. aeruginosa. Where fitted, regard filters primarily as a temporary control measure until a permanent solution is developed, although long-term use of such filters may be required in some healthcare applications. Where POU filters are fitted to taps, follow the manufacturer's recommendations for renewal and replacement and note that the outer casing of a POU filter and the inner surface can become contaminated (see also paragraphs **7.45–7.49**). There should be sufficient activity space once a POU filter has been fitted.* ***HTM04:01 – Considerations when changing taps:*** *I. In certain circumstances, the WSG may decide it is necessary to carry out a disinfection of the hot and cold water distribution systems that supply the unit to ensure that contaminated outlets are treated. See **chapter 2** of **HSG274 Part 2** for guidance on how to carry out the disinfection procedure. Note that with respect to P. aeruginosa, hyperchlorination is not effective against established biofilms.* *Consider replacing contaminated taps with new taps; however, there is currently a lack of scientific evidence to suggest that this will provide a long term solution.* *When replacing taps, consider fitting:* • *removable taps;* • *taps that are easy to use;* • *taps that can be readily dismantled for cleaning and disinfection;* • *taps to which a filter can be attached to the spout outlet.* ***Note:** Such taps can be used for supplying water for cleaning incubators and other clinical equipment.*	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	**BS 8580-2:2022 - "Water Quality Part 2: Risk Assessments for *Pseudomonas aeruginosa* and other Water Borne Pathogens- Code of Practice"** **What is BS 8580-2:2022?** **BS 8580-2** *"Water Quality Part 2: Risk Assessments for Pseudomonas aeruginosa and other Water Borne Pathogens – Code of Practice"*. Is a British Standard that sets out guidance for those responsible for undertaking Risk Assessments for the control of *P. aeruginosa* and some additional 12 groups of waterborne pathogens of concern, as outlined in **Annex A** of the document. **What is the interpretation from BS 8580-2 in relation to POUF's** POU filters are an established supplementary control measure for the prevention of infection by waterborne bacterial pathogens and are recommended for use as such in both **HSG274 Part 2** and **HTM:04-01**. However, guidance on the correct selection, management, and control of POU filters is somewhat limited. Considering how critical these elements are to their effectiveness as an infection control measure, the lack of further guidance has been conspicuous by its absence for some time. Recognising the important role that POU Filters play in infection prevention, **BS 8580-2** builds on the existing guidance, highlighting additional considerations for POU Filters for those undertaking Risk Assessments for the control of *Pseudomonas aeruginosa* and other water borne pathogens. ***14.5 Point of use (POU) filters*** *Where POU filters are fitted, assessors should verify they are suitable for the intended use (i.e. they are CE marked or the UK equivalent after 2022) and fitted correctly, and checked regularly for leaks around the fitting and there are predetermined criteria for removal. Due to the risk of contamination of POU filters and the surrounding area, the filters should not be re attached once removed. The assessment should also take into account whether:* ***a)** the choice of filter is suitable for its intended purpose (0.2 µm sterilizing grade filters intended for use in healthcare settings to prevent dissemination of waterborne bacterial pathogens);* ***b)** there are documented procedures agreed by the WSG for fitting, changing and cleaning filters;* ***c)** there are suitable training and competence checks in place to verify filters are connected to the tap correctly and without any leakage around the fitting and filter;*	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required

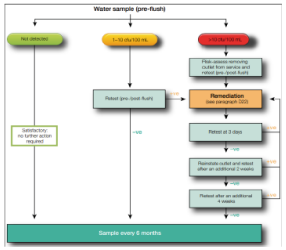
Stakeholder	Section	Comments	Working party response
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	***d)*** *where fitted as a short-term measure there are pre-determined criteria for when filters can be removed;* ***e)*** *filters are fitted with an appropriate air gap;* ***NOTE 1*** *Attention is drawn to the Water Supply (Water Fittings) Regulations [19] with regard to selection of the correct filters.* ***NOTE 2*** *In order to comply with the regulations, the filters can be WRAS approved.* ***f)*** *there is sufficient activity space to wash hands or fill drinking water receptacles without contact with the drain or any surfaces including of the filter housing;* ***g)*** *there is sufficient stock of POU filters and any necessary adapters to verify they are changed at the frequency recommended by the manufacturer with spares for when they need to be removed for sampling or blockages; and* ***h)*** *training of cleaners and ward staff is provided so they understand the risks of removal, cross contamination and appropriate cleaning if any required.* **Filter Selection - section 14.5 a:** *The choice of filter should be suitable for its intended purpose (0.2 µm sterilising grade filters intended for use in healthcare settings to prevent the dissemination of waterborne bacterial pathogens).* **Management Arrangements - sections 14.5 b & d:** *There should be documented procedures agreed by the WSG for fitting, changing, and cleaning filters, and where fitted as a short-term measure there are pre-determined criteria for when filters can be removed.* **Training - sections 14.5 c & h:** *There should be suitable training and competence checks in place to verify filters are connected to the tap correctly without any leakage, and that training of cleaners and ward staff is provided so that they understand the risks of removal, cross contamination, and cleaning.*	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	**Activity Space - section 14.5 f:** *There should be sufficient 'activity space' to wash hands or fill drinking water receptacles without contact with the drain or any surfaces.* **Air Gap - section 14.5 e:** *Filters should be fitted with an appropriate air gap.* **Filter Management - section 14.5 g** *There should be sufficient stock of filters and adapters, to verify that they are changed at the frequency required, with spares.* **When to use:** Point of Use Filters (POUF), should be used when there is a failure of a control regime (i.e. temperature, biocide levels) or on the receipt of adverse microbiological results, or a combination of all, furthermore where there are areas of low on no use of water facilities. POUFs, may also be deployed as a control regime in high risk areas, such as augmented care, they should also be used for where ice is needed for treatment purposes, as guidance states this *"should be made using water obtained through a microbiological POU filter or boiled water in sterile ice trays or ice bags."* A POUF can be used as a Risk Mitigation Tool as per the example scenarios below: • Consideration to be given for POUF use on capital / refurbishment works, where there is potential any biofilms within the water distribution system to be disturbed and released, working on a live water system can have a major impact on increasing microbiological activity within the service. POUFs can additionally be utilised when commissioning any water systems whilst awaiting sample results, to ensure that end user safety is being maintained at all times. This would not only be in the area of the works, but consideration to be given to surrounding services / connections / areas. Additionally, a POUF can be used whist awaiting sample results for a newly opened facility / ward / area etc. to enable occupation.	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required

Stakeholder	Section	Comments	Working party response
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	• Further thought on when a secondary control measure in implemented, i.e. online chemical dosing, this would increase the amount of biofilm release with higher levels of microbiological activity within the water system. POUFs would be required as part of the commissioning of the unit(s), until the water system has stabilised. It is to be noted that a POUF is not for use when systems are out of control, but to be utilised as a control measure, this will ensure that end **user / patient safety** is maintained at all times where possible. A POUF is not only for use with Taps and / or Showers, below are other applications for consideration, suggested only, but not limited to: • Taps – not just for everyday use (hand hygiene, personal care, oral care), consideration to splashing areas around the sinks / hand wash basins (medicines, medical equipment), food and drink preparation • Showers • Birthing Pools • Assisted bathing units (Arjo Baths) • Facilities used for wound care (burns, post-surgical) • Toilet Flushes / Sluice Hoppers – splashing of equipment / surfaces / aerosols that may not fully disseminate immediately • Connections to Ice Makers / Water Dispensers / Vending Machines • Kitchen Spary Rinse Washers • Cleaning of medical equipment / patient contact items - Humidified Incubators, Respiratory equipment (CPAP units, Nebulisers, ventilators), Perfusion Equipment (i.e. Blood Heater Coolers), Humidifiers (portable), Dialysis equipment • Connections to / filling of Cardiac Heater Coolers and other medical / perfusion equipment, Dental Chairs / Equipment, ultrasonic baths • Milk Warmers • Water used for the filling of and / or cleaning of soft FM equipment / items (Steam cleaners, floor cleaners, pressure washers, mops, buckets)	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	• Sensory equipment (Bubble Tubes etc.) - where are these filled from? • Estates workshops for maintenance of water related equipment (TMV testing rigs, shower head / hose cleaning stations). **What to check for when selecting a Point of Use Filter:** • Tested and validated in compliance with **ASTM F838** (American Standard Test Method), Standard Test Method for Determining Bacterial Retention of Membrane Filters Utilised for Liquid Filtration, having a requirement of the standard to demonstrate a retention efficacy of **>7 Log (99.99999%)**, with preferably total retention of bacteria via fully validated test protocols. • Having a sterilising grade 0.2µm rated membrane filter • Microbial retention efficacy - validated over life cycle, validated via infield studies, all being tested / validated against specific clinical waterborne pathogens of concern (as highlighted on **Table A.1**in **BS 8580-2:2022**). • Full **WRAS** (Water Regulations Advisory Scheme) approval for all component parts of the POUF including any adaptors • Compliance of manufacturer, products, components and raw materials - **BS 6920** (required for **WRAS** approval *(Requirement of Schedule 2 paragraph 2 & Guidance G2.2))*, **ISO 1348**, drinking water directive 2020/21845 and food contact regulation 10/2011 • Does the POUF have an Integral check valve to prevent backflow contamination upstream, the check valve can also avoid potential release of high concentrations of pathogenic micro-organisms during exchange and removal of a POUF • What are the tolerance limits for exposure to water system disinfectants • What are the **Maximum** operating conditions, i.e. temperature and pressure • What are the tolerance limits for exposure to surface disinfectants and cleaning agents • Air Gap / Activity Space as described in **BS 8580** and other pertinent documentation • Operation with sensor taps – does the POUF interfere with the sensor? • Is there a **Laminar Flow** for basin / sink use – Reduced splash Risk from High Pillar Taps • Tap Operation / "Shark fin Basin", refer to basin selection information • Method of tracking installation / exchange / removal, via a barcode / datamatrix / QR code on the unit • Stock availability / Distribution, if required how quickly are you able to source	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required

Stakeholder	Section	Comments	Working party response
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	• Technical backup / support from POUF manufacturer • Training by the supplier, correct installation, maintenance, and removal procedures • Provision of an auditing facility via the supplier • POUF design maintains air gap and reduces retrograde contamination risk • Does the POUF casing material have any antibacterial additives, reducing risks of retrograde contamination • Does the POUF have constant flow technology, ensuring optimal flow performance over life cycle of the unit(s) • Is there an anti-tamper function to prevent the POUF being removed by users • Is the unit fully traceability through the **ISO13485** production process. **Ensuring correct life cycle, along with the right filter for the right outlet:** The implications of installing the incorrect filter to an outlet and basin configuration can be significant, the consequences of which may be detrimental to end user safety, impede the operation of the outlet or contravene Water Regulations / Bye-Laws. Ultimately, compatibility of the filter with the outlet and basin / sink / facility is key to ensuring this is avoided. A one size fits all approach is not practical when it comes to selecting a suitable POUF. This highlights the importance of choosing the **right filter** for the **right outlet** to optimise the efficacy of waterborne infection prevention and control, therefore consideration to be given on the bacteria of which the filter is being installed for protection of the end user, as this will dictate the style of filter and life cycle choice. **Note to remember** - **The right filter for the right outlet** approach, which will help ensure that the efficacy of filters as an infection control measure, ensuring end user safety is maintained. **Suitability for use with:** • Shallow Hand Wash Basins • Use with Sensor / Infra-Red Taps • Vertical Siphon Wash Basins • Shark Fin Clinical Wash Basins	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	• Wall Mounted and Swan Neck Taps • Vertical Lever Taps • Toilet Cisterns – in-line protection • Anti-ligature facilities • POUF connection adaptors have the correct threads to ensure a watertight connection. Different POUF options may be available from the manufacturer, always liaise with their team to ensure the correct POUF is being utilised for the purpose it is being deployed for. **Target Bacteria** • *Legionella* • *Pseudomonas* • NTM's • Other non-specific waterborne bacteria. **Lifecycle of filter** There two lifecycle choices typically for a POUF, which listed below, both with their own specific merits for use to ensure patient / end user safety. **Up to 31 days -** Potential uses – suggested only, but not limited to the below: • Short term use • High Risk (Augmented Care) areas / facilities • Local / outlet contamination • Areas where enhanced water sampling surveillance is being undertaken • Areas awaiting sample results following a refurbishment or maintenance works, along with newly built facilities.	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required

Stakeholder	Section	Comments	Working party response
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	With the up to 31 day lifecycle it is recommended that these units are used in "**High Risk**" areas as per above, however to ensure there is no "**Environmental Contamination**" i.e. *P. aeruginosa* swab sampling should be undertaken from the casing(s) of the POUFs, this is critical in these areas, as it must be ensured the POUF is not being contaminated via poor cleaning methods and / or other means. **Up to 92 days -** Potential uses – suggested only, but not limited to the below: • Longer term use • Potential systemic contamination • Areas where limited water sampling surveillance is being undertaken • Systems which are undergoing remediation / engineering works. With the up to 92 day lifecycle it is recommended that these units are used where a longer term solution is required, typically where there is bacterial contamination within the water system, i.e. *Legionella*. **How to install correctly:** Installation of any POUF / Inline Filter **must** be in accordance with the manufacturer's instructions, along with having a robust standard operating procedure / method statement in place for this this task. **Suggested Procedure for Removal of outlet restrictor(s) / Installation of tap adaptor(s):** • The below process should also be considered dependant on the waterborne bacteria the Medical Grade Filter is being installed to protect the end user(s) for. • Identify outlet / facility to accept the POU / inline filter • Ensure facility is turned off • Wash hands thoroughly using an alternative facility or sanitise fully via an alternative method if this not practicable, then don a pair of single use gloves, if required as part of the aseptic technique for this set of tasks, this should be formalised	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	via the organisation Water Safety Group, review Water Safety Plan or with consultation of the Responsible Person (process to be followed for each POUF installed, if deemed necessary via one of the aforementioned). • Using pre sanitised hand tools where applicable, remove any flow restrictor / aerator or shroud from the tap / facility to accept the POUF adaptor • Once removed, spray the outlet of the facility with a sanitizer (70% isopropanol or 1% sodium hypochlorite) and leave for 2 minutes, the purpose of this step of the procedure is to limit any retrograde contamination and ensuring the connection between the outlet / facility is as hygienic as possible • Attach POUF adaptor to the outlet, and tighten to finger tight before final tightening using pre-sanitised hand tools ensuring a water tight seal is achieved, this can be checked by utilising a clean paper towel. **Suggested Procedure for POUF Install:** • Check that the packaging for the new filter is intact, and then carefully open the packaging without touching the filter casing • Hold the filter by the packaging taking care not to touch the filter; position and lock the filter to the tap adapter • Remove the packaging and discard as general waste. **Suggested Procedure for Filter Exchange / Removal:** • Identify the POUF to be removed and exchanged with a new unit • Wash hands thoroughly and don a pair of single use gloves (process to be followed for each POU filter installed) • Remove POUF as per below, for the a Shower Filter, it is a simple exchange • If required, remove tap adaptor and either replace with new or one that has been cleaned and disinfected, ensuring outlet is fully disinfected prior to re-installing, as per installation steps • Using a clean and dry paper towel, wipe any excess water remaining on the tap filter adapter to avoid inadvertent contamination of surrounding areas of the tap outlet. Discard the paper towel within the clinical waste bin • If filter is no longer required re-instate tap aerator following hygiene practices and record accordingly, following the below procedural steps.	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required

Stakeholder	Section	Comments	Working party response
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	**Suggested Procedure for Removal of tap adaptor(s) / Installation of outlet restrictor(s):** • Identify outlet / facility to remove the POU / inline filter, this should only be undertaken if permission has been given by the relevant parties. • Ensure facility is turned off • Wash hands thoroughly using an alternative facility or sanitise fully via an alternative method if this not practicable, then don a pair of single use gloves, if required as part of the aseptic technique for this set of tasks, this should be formalised via the organisation Water Safety Group, review Water Safety Plan or with consultation of the Responsible Person (process to be followed for each POUF being removed, if deemed necessary via one of the aforementioned) • Using pre sanitised hand tools where applicable, remove the POUF adaptor • It is recommended that once the POUF adaptor has been removed, it is to be replaced with a new unit, which has been dip disinfected, along with the outlet / facility being cleaned and disinfected following the relevant guidance / advice in in **HSG274 Part 2** and **BSI's PD855468**. • Once the local disinfections have taken place, install the flow restrictor / aerator or shroud to the outlet, and tighten to finger tight before final tightening using pre-sanitised hand tools ensuring a water tight seal is achieved. **How to maintain / cleaning:** POUF are designed to deliver safe water at the point of use, by acting as a barrier to the release of opportunistic waterborne pathogens originating from the water supply and distribution system. However, like any surface used for personal hygiene POUFs may be at risk of environmental contamination caused by **Retrograde Contamination** (**RC**), that may compromise the efficacy of infection prevention and control. **RC** is a known phenomenon, whereby micro-organisms from the localized environment contaminate the outer surfaces of a filter capsule, that may then subsequently be transported in the filtered water during use. There are many sources of **RC**, including handling during use, back splashing, and cross contamination from ineffective cleaning of sanitary fittings.	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	Therefore, to ensure that the POUF remain an effective infection prevention and control method, care should be taken to minimize the risk of **RC** through routine cleaning and disinfection. As previously refenced in this document, it is advised that microbiological surveillance via swab testing is undertaken as a supplementary control to ensure that the cleaning protocols of the POUF(S) is adequate and is not creating any retrograde contamination. POUFs **should be** cleaned and disinfected at a frequency that is required to ensure that efficacy as an infection prevention and control method is not compromised. This should be determined via a process of risk assessment, in line with the localized hygiene protocols in place. Specifically, **HTM 04-01 Part B**, **section 7.48** states '***point of use filters should be wiped clean as part of the basin / sink cleaning protocol as agreed by the WSG***', for example ensuring there are no poor cleaning practices, e.g. cleaning the end of an outlet with a cloth which has been used after cleaning a WHB drain. **BS 8580-2: Annex C states: Section 3.30** - Are there documented procedures for fitting, cleaning, changing and eventual removal of POU filters? Is there sufficient stock of filters and adaptors available? **Disposal** There needs to be clarification from the supplier as to how the POUF is disposed of and which waste category number this would fall under in accordance with EU Directive 75/442/EEC, additionally it is sites choice as it if the unit(s) is / are disposed of via other means i.e., clinical waste bins. **When to remove:** Removal of any POUF is by the agreement of the WSG (including final sign off via the consultant microbiologist), it must be fully agreed and documented as to why the removal of the POUF(S) has been implemented.	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required

Stakeholder	Section	Comments	Working party response
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	It is typical that POUFs are removed after 3 sets of negative results (for *P. aeruginosa*), for *Legionella* this can be subject to the organisations WSP, however, the organisation WSP should be consulted on, as different organisations have different trigger points for POUF removal. Below is an extract from **HTM:04-01 Part B** - Appendix D Testing for *P. aeruginosa:*  **Requirement for water testing:** Microbiological surveillance is an essential element of the early identification of water outlet contamination to prevent hospital-acquired infections so the frequency of routine sampling for *P. aeruginosa* and other waterborne pathogens e.g. NTMs should be based on risk assessment and agreement with the WSG.	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to select, how to install correctly, how to maintain, when to remove, requirement for water testing.	The frequency of microbiological sampling, where there are high-risk patients, should be sufficient for trend analysis to establish evidence-based confidence that control measures remain effective. When establishing trends, sampling should be carried out frequently (for example, monthly). This frequency should be reviewed by the WSG based on sample report findings. The requirement for water testing is via the input and implementation of the WSG, with final sign off via the consultant microbiologist. **Section 10 of HTM:04-01 Part B states – Testing for *Legionella*:** ***10.1** Legionella monitoring should be carried out where there is doubt about the efficacy of the control regime or where the recommended temperatures, disinfectant concentrations or other precautions are not consistently achieved throughout the system. The WSG should use risk assessments to determine when and where to test, which may include the following circumstances:* ***a.** When storage and distribution temperatures do not achieve those recommended and systems are treated with a biocide regime, testing should be carried out monthly, although that frequency may be altered depending on the results obtained.* ***b.** In systems where the temperature or biocidal control regimes are not consistently achieved, weekly checks are recommended until the system is brought under control, after which the frequency of monitoring can be reviewed.* ***c.** When a nosocomial outbreak is suspected or has been identified.* ***d.** Where there are at-risk patients with increased susceptibility.* However, within **HTM:04-01** there are recommendations for 6-mothly testing for *P. aeruginosa* in high risk locations (augmented care). **HTM:04-01 – Appendix D – Testing for *P. aeruginosa*** ***Where to sample water outlets - D12.** The water outlets to be sampled should be those that supply water which:*	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than suggesting topics to be covered in the new HIS guideline; as such no response is required
Jim Perry, T-safe UK Ltd	5. Point of use filters – when to use, how to	• has direct contact with patients; • is used to wash staff hands; or	The comments from this stakeholder refer to existing guidance and how areas in that guidance should be reflected in recommendations for practice, rather than

Stakeholder	Section	Comments	Working party response
	select, how to install correctly, how to maintain, when to remove, requirement for water testing.	• is used to fill or clean equipment that will have contact with patients as determined by risk assessment.	suggesting topics to be covered in the new HIS guideline; as such no response is required
Natasha Ratnaraja, Royal College of Pathologists	5. Point of use filters	Again this will be really useful. Clear advice on whether to do pre-, post- flushing or both when a filter is in situ. Clear advice on cleaning the filters would be useful i.e. not cleaning the actual filter. How long to use filters- e.g. until 3 consecutive negative samples (how far apart), indefinitely, etc	Thank you for this comment in support of the proposed priorities. The aspects referred to in the comment will be included in the guideline scope
Pat Cattini, University Hospitals Sussex	5	Less emphasis on POU filters and more about ensuring appropriate outlet maintenance e.g descaling. If contaminants are in drain, them POU is a waste of time. An area that needs more research.	The guideline scope will include point of use filters. However, the scope has been revised to clarify that it covers water outlets in general and that it covers cleaning and maintenance
UK Health Security Agency	Section 5	This is a high priority to support health (and care) providers in understanding requirements, risks and benefits. Currently this advice is may not be consistent because it might be provided by point of use filter manufacturers, or contracted external consulting firms.	Thank you for this comment in support of the proposed priorities
6. The periphery of the water system – Common water and wastewater risks in the built environment and potential mitigations			
Anonymised at the	6.	Think this will be really valuable for those involved in water safety for are not from an engineering background.	Thank you for this comment in support of the proposed priorities

Stakeholder	Section	Comments	Working party response
stakeholder's request			
Natasha Ratnaraja, Royal College of Pathologists	6. The periphery of the water system – Common water and wastewater risks in the built environment and potential mitigations	This is very welcome and would be incredibly useful. Advice on mitigations as per type of built environment would be useful, again considerations for mental health estates, clinical versus non-clinical environments, showers etc. Advice re dead legs, low use showers, handwash basins etc.	Thank you for this comment in support of the proposed priorities. The guideline scope will include the aspects referred to in the comment
Pat Cattini, University Hospitals Sussex	6	Showers. Don't put showers in every single room. Have them concentrated in one area of the ward which would make them easier to maintain and would ensure regular use, improving water flow. Most showers don't get used every day. If you are sick enough to get a hospital bed, you may not be well enough to use the shower. Waste disposal ,a big issue is stopping staff putting waste into CHWBs, e.g tea dregs, IV fluids, wash water, and even body fluids. Should we have more frequent waste disposal points to make it easier for people to do the right thing (human factors)?	Showers and waste disposal will be included in the guideline scope

Stakeholder	Section	Comments	Working party response
UK Health Security Agency	Section 6	The periphery of the water system – Common water and wastewater risks in the built environment and potential mitigations • This should include drinking water dispensers – all aspects from specifications to maintenance OR be a separate section • This is a high priority due to a need for consistency of approach to risk identification, assessment, and mitigations, across organisations. Needs to include hierarchy of risk to particular patient and staff groups, as well as hierarchy of controls for acute inpatient healthcare.	The aspects referred to in the comment will be included in the guideline scope
7. How to conduct a periphery of the water system risk assessment			
Anonymised at the stakeholder's request	7.	Not sure detail on doing a risk assessment will be within the remit of the group this guidance is targeted towards?	Risk assessment requires a multidisciplinary approach as reflected in the composition of the working party and the guidance that will be developed
Natasha Ratnaraja, Royal College of Pathologists	7. How to conduct a periphery of the water system risk assessment	Advice on what factors to take into account e.g. dead legs, low use sinks and showers etc. A template would be useful and help standardize practice.	The aspects referred to in the comment will be included in the guideline scope
UK Health Security Agency	Section 7	Overview of water systems and control methodologies • In this or another section, there should be advice on how to proceed in the event of no water supply due to either system disinfection or mains water failure	This comment relates to Section 8 (Overview of water systems and control methodologies). Suppliers are responsible for rectifying issues that occur on the supply

Stakeholder	Section	Comments	Working party response
		• a consistent approach through development of a template or similar would be beneficial	side. Other than this, the aspects referred to in the comment will be included in the guideline scope
8. Overview of water systems and control methodologies			
Anonymised at the stakeholder's request	8.	Really useful.	Thank you for this comment in support of the proposed priorities
Anonymised at the stakeholder's request	TOPIC 8	An update on the evidence related to this topic will be really useful. Guidance as to actions to take when failures of control systems occur would also be helpful	Thank you for this comment in support of the proposed priorities
Natasha Ratnaraja, Royal College of Pathologists	8. Overview of water systems and control methodologies	Again really useful. PFI vs NHS estates.	Thank you for this comment in support of the proposed priorities
UK Health Security Agency	Section 8	Overview of water systems and control methodologies: • This should include an analysis of disinfection methods and their relative indications and effectiveness. • This should include best practice in managing contaminated showers. • Consider including information on reservoirs that have been linked to outbreaks	The aspects referred to in the comment will be included in the guideline scope
9. New build major refurbishment- how to proceed, what are the risks, water free care, wetting of water systems, commissioning of water systems			
Anonymised at the	9.	Vital. Learning from recent experiences at Glasgow and Edinburgh hospitals.	Thank you for this comment in support of the proposed priorities

Stakeholder	Section	Comments	Working party response
stakeholder's request			
Natasha Ratnaraja, Royal College of Pathologists	9. New build major refurbishment- how to proceed, what are the risks, water free care, wetting of water systems, commissioning of water systems	Incredibly useful and welcome. A lot of newer builds are PFI; how can an NHS based water safety team influence new builds/refurbishments?	Thank you for this comment in support of the proposed priorities. The aspects referred to in the comment will be included in the guideline scope
UK Health Security Agency	Section 9	New build major refurbishment- how to proceed, what are the risks, water free care, wetting of water systems, commissioning of water systems • Agree it will be key to ensure principles are provided for the design and build of new health and care settings, as well as particular issues that need to be addressed when undertaking building and water system refurbishment.	The aspects referred to in the comment will be included in the guideline scope
Other			
Catherine Whapham, Water	10. Successful Remediation	A suggestion for microbiological support is the Verification of Remediation Effectiveness. A grey area – often this is not completed or undertaken poorly, or the same remediation	The aspects referred to in the comment will be included in the guideline scope

Stakeholder	Section	Comments	Working party response
Hygiene Consultant		SOPs are completed without measurement of sustainable effect. An example of common remediation is the cleaning and disinfection of colonised TMV/TMT	
Jim Gray, Birmingham Women's & Children's NHS Foundation Trust	?Out of scope	Not sure if this would be out of scope, but guidance on when it may not be appropriate to use tap water in clinical settings would be useful. In particular I am aware that there is considerable variation in practice on neonatal units about using filter/unfiltered tap water or sterile water for bathing babies.	The aspects referred to in the comment will be included in the guideline scope
Pat Cattini, University Hospitals Sussex	Other	Look at vacuum toilets	The guideline scope has been revised to clarify that it covers water outlets in general, including toilets
Pat Cattini, University Hospitals Sussex		Single rooms to have no CHWB in bed area. Provide ensuite toilet and wash hand basin of a good size (min 400). Have showers located in a block on ward. Isolation rooms (1 per 5 beds on the ward) to have ensuite which includes a shower. Any bay areas could have one CHWB, but not located too near the patient to avoid splash contamination. Must be easily accessible to all i.e not behind a curtain or door. Bays should have a separate toilet and a shower room with a toilet to make it easier for patients to access a toilet if shower in use.	The guideline scope has been revised to clarify that it covers water outlets in general, including sinks and toilets

Stakeholder	Section	Comments	Working party response
		Provide a few CHWBs in corridor areas (not in patient single room), this allows handwashing where needed. Emphasis should be on alcohol hand rub, ideally one of a high quality!. Consultation rooms don't need a CHWB. Only used for tea dregs. Put sink in corridor and use alcohol handrub in room. Clinical rooms should not have a CHWB if used for drug prep.	
UK Health Security Agency	Title	Please amend to Water management for healthcare microbiologists and infection prevention and control teams. The guideline will have wider applicability than healthcare microbiologists	The guideline title has been amended to Water management for health and care settings to make it more inclusive in terms of settings and professional groups