# National standards for cleaning in Wales - ADDENDUM

# Key Standards for Environmental Cleanliness

# Revision 2.0 – December 2021

## Contents List

## Introduction

It is recognised by Welsh Government through the Nosocomial Transmission Group (NTG) (led by the office of the Chief Medical Officer) that there is a continued need to have the assurance that environmental cleaning is being managed according to current UK guidance '***Infection prevention and control for seasonal respiratory infections in health and care settings (including SARS-CoV-2) for winter 2021 to 2022'*** and national standards for cleanliness to prevent and minimise nosocomial transmission of any infection. This remains a crucial strategy for winter 2021/22 as key respiratory viral infections (especially Influenza, COVID-19 and RSV) in the community have been predicted to rise impacting health care services and bed occupancy alongside other winter pressures. The importance of cleaning has recently been emphasised in guidance from NHS Wales Shared Services Partnership and accompanying letter from The Deputy Chief Medical Officer:

*'Operational guide for the transition of healthcare environments in preparation for Autumn/Winter 2021/22 incorporating COVID - 19 Measures'. (NWSSP publication and DCMO letter dated 23rd Sept. 2021)*

This will also be important as organisations move towards a return to business-as-usual model. Published guidance is based on current evidence base concerning how these and other Healthcare Associated Infections (HCAI) are transmitted, how long they survive in the environment and how to remove and kill them. It is important to have clear standards across Wales for cleaning in healthcare settings so that there is a common approach that organisations can adopt and benchmark themselves against.

This document sets out a reviewed and revised series of recommended standards and principles for all NHS Wales organisations to apply within their settings and to assist staff involved in environmental cleaning and decontamination. While the focus of the first COVID-19 addendum was ensuring acute and community hospital settings were safe, the revised standards are more transferrable, the standards are generally applicable to all healthcare and ancillary support service settings. The revised standards emphasise the need for risk assessment in determining the frequency and method of cleaning/decontamination as well as the importance of monitoring effectiveness and reporting non-compliance. The cleaning frequencies listed should be seen as minimums. In some situations organisations may consider if cleaning frequencies should be further increased based on patient occupancy, flow and known or suspected risk within individual clinical areas.

| **Standard 1: Policies and Pathways** – there should be robust policies in place that detail the cleaning plans for different patient pathways | **Key Notes** |
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| This includes:<br>a) *Risk based cleaning protocols by area/ward/dept. are in place that adhere to existing National Cleaning Standards for the NHS (2009)* | *Organisations need to be able to react in a timely manner to update documents, policy and procedures as new evidence and guidance becomes available*<br><br>*These requirements should apply to all disciplines/roles who have responsibility for cleaning* |
| b) *Specific cleaning protocols need to meet and respond to the patient pathway according to level of risk of infection* | *https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control*<br><br>*Acknowledging the infection risk (e.g. known or suspected of a viral respiratory infection), acuity of the patient and level of intervention (e.g. critical care, theatres V OPD or general practice), the patient pathway (e.g. unscheduled care, community services, GP consultation, triage areas)* |
| c) *Having specific protocols to address non-clinical areas* | *Includes clinical offices, shared areas like canteens rest rooms, waiting area where staff, patients or visitors congregate.*<br>*Changes to cleaning frequencies should be determined by the risk allocation assigned to each area. (i.e. the frequency of cleaning for each assessed area will be determined by the risk level allocated through risk assessment)* |
| d) *increased frequency of cleaning / disinfection is incorporated into the environmental decontamination schedules for all areas, where there are known or suspected infectious patients or increased transmission risks* | *It is acknowledged that a local risk based approach cleaning frequency may be appropriate in all settings depending on infection risk (see notes b)* |

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| e) *Infection prevention and control policies to support best practice e.g. Standard Infection Control Precautions (SICP) and Personal Protective Equipment (PPE) for cleaning staff (and any other staff who undertake cleaning duties) should be developed and implemented locally following national guidelines.* | *https://phw.nhs.wales/services-and-teams/harp/infection-prevention-and-control/nipcm/* |
| f) *Guidance highlights the need to keep ALL environments clutter free, with all shared non-essential items removed.* | *Toys present in all areas should be cleanable / washable and of a non-porous nature. If this is not possible, the toys should either be removed from use, or should be single patient use, or local policy adhered to for decontamination.*<br><br>*Also includes books and magazines or difficult to clean items and soft furnishings and includes therapeutic items e.g. twiddle mitts/muffs* |
| g) *Clear protocols for clinical staff on decontamination of care equipment and medical devices in accordance with local policy and manufacturers 'Instructions For Use' in all patient pathways* | *T*hese *should* recognise *increased transmission risks and need to decontaminate devices and equipment after use and between each patient as a minimum* |
| **Standard 2: Cleaning frequency** - The frequency of cleaning all environments must be sufficient and maintained | **Key Notes** |
| This includes:<br>a. *The frequency of cleaning for single rooms, cohort areas and clinical rooms must be risk assessed* | *There is evidence of the potential for widespread contamination of the environment with viral particles from symptomatic individuals, so effective cleaning and decontamination is essential to reduce viral loads.*<br><br>*While the UK IPC guidance for managing Respiratory Viral infections states a minimum frequency of twice daily in those known or suspected of infection this will need to be based on the patient pathway (see Appendix 1 for recommended frequencies)*<br><br>*The cleaning frequencies listed should be seen as minimums. In some situations organisations may consider if cleaning frequencies should be* |

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| | *further increased based on patient occupancy, flow and known or suspected risk within individual clinical areas.* |
| b. *Organisations having a set of cleaning frequencies in place to manage other pathogens and infectious diseases* | *In the management of other risks and Healthcare Associated Infections (HCAI)* |
| c. *Increased frequency where there may be higher environmental contamination rates* | *Where Aerosol Generating Procedures (AGP's) are being performed in known or suspected cases of respiratory viral infection and during increased incidence/outbreaks of other infections/HCAI (Healthcare Acquired Infections)* |
| d. *Rooms/areas where PPE is removed must be decontaminated, ideally timed to coincide with periods immediately after PPE removal by groups of staff (also see Appendix 1).* | *Donning and doffing zones at end of shifts* |
| e. *Surfaces **deemed as frequent touch points** such as medical equipment, door/toilet handles and locker tops, patient call bells, over bed tables and bed rails must be cleaned according to frequencies set out in Appendix 1 and when known to be contaminated with secretions, excretions or body fluids;* | *Surfaces deems as frequent touch points must be documented within the Audit process. It is important to evidence these frequencies are being achieved.*<br><br>*Surfaces known to be contaminated with secretions, excretions or body fluids should be cleaned without delay*<br><br>*These requirements should apply to all disciplines/roles who have responsibility for cleaning* |
| f. *Touch points in public areas such as lifts and corridor handrails.* | |
| g. *Electronic equipment, including mobile phones, desk phones and other communication devices, tablets, desktops, and keyboards (particularly where these are used by many people), should be decontaminated according to frequencies set out in Appendix 1* | *https://phw.nhs.wales/services-and-teams/harp/infection-prevention-and-control/guidance/standards-for-infection-prevention-control-in-the-use-of-mobile-devices-md-in-healthcare/* |

| **Standard 3: Cleaning Agents** – Decontamination of equipment and the care environment must be performed using products that are effective in removing/killing viruses as well as other pathogens | **Key Notes** |
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| This includes:<br>a. *Only using cleaning and disinfecting agents and materials supplied by employers* | |
| b. *A combined detergent/ disinfectant solution at a dilution of 1,000 parts per million available chlorine (ppm available chlorine (av.cl.)); **or*** | |
| c. *A general purpose neutral detergent in a solution of warm water followed by a disinfectant solution of 1,000ppm av.cl **or*** | |
| d. *Any alternative cleaning agents/disinfectants to be used must conform to EN standard 14476 for virucidal activity.* | *Includes wipes or non-chlorine products but only on the advice of the Infection Prevention & Control (IP&C) team*<br>*Note 1: Sporicidal agents may be required in order to manage and deal with other pathogens (e.g. C. difficile).*<br>*Note 2. BS EN 14485 defines the trials and testing process required, with liquid formulations required to pass for use. BS EN 13727 and EN1276 assesses bacterial activity for prevention of other non-viral HCAI.* |
| e. *70% alcohol or alternative product as specified by manufacturer should be used to decontaminate electronic equipment* | *Including mobile phones, desk phones and other communication devices, tablets, desktops, and keyboards*<br><br>*https://phw.nhs.wales/services-and-teams/harp/infection-prevention-and-control/guidance/standards-for-infection-prevention-control-in-the-use-of-mobile-devices-md-in-healthcare* |
| h) *Cleaning agents must be prepared and used according to the manufacturers' instructions and recommended product 'contact* | *Users should be aware of the contact time stated for the disinfectant they are using, not just for respiratory viruses but a range of* |

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| *times' must be followed. These should be reflected in local procedures or work instructions.* | *healthcare associated infections. Longer contact times are generally impractical in a healthcare environment.* |
| *f. Any use of alternative or validated novel technologies are used as an adjunct to manual cleaning / disinfection* | *See Standard 7 for Technological Solutions* |
| **Standard 4: Cleaning equipment** - sufficient and suitable cleaning equipment must be available to undertake all cleaning duties | **Key Notes** |
| This includes:<br>*a. Dedicated or disposable equipment (such as mop heads, cloths) must be used for environmental decontamination.* | *Cleaning materials should be allocated for use to a given area (Clinical or non-clinical) and not shared across other areas/departments where possible*<br><br>*Dry mopping and dusting are not permitted in clinical areas managing patients with viral infections* |
| *b. Reusable equipment (such as mop handles, buckets) must be thoroughly decontaminated after use* | *Decontamination should be in line with the organisation's IP&C approved procedures.*<br><br>*Clean or unused? materials such as cloths etc. should be stored dry and above floor level* |
| *c. Communal cleaning trollies should not enter isolation rooms* | *Nor shared between patient pathway areas e.g. wards/dept/cohort areas.*<br><br>*Rapid or mobile cleaning teams must have a protocol to ensure trolleys are stripped and cleaned before moving to another area* |
| *d. Cleaning trollies should be stocked with minimal stock before use* | *To prevent contamination of unused stock* |
| *e. Ensure reusable items and trollies are decontaminated and stored correctly between use* | *To include mop handles, buckets etc.* |

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| | *Regular inspection of equipment should be undertaken to ensure it is in good condition and working order* |
| *f. Re-usable cleaning cloth systems must be used according to manufacturer instructions and decontaminated correctly* | *Single use disposable materials may be appropriate in some areas as risk assessed. Where cloths or mop heads are being reused (e.g. microfibre) there must be adherence to manufacturer instructions For Use (IFU) in the transport, storage and reprocessing (laundry services) in accordance with WHTM 01-04.* |
| *g. Disposable single use disinfecting wipe systems are used in accordance with manufactures IFU on specified equipment e.g. medical devices as directed by IPC policy* | *All staff must be trained in the safe and suitable use of wipe systems to ensure decontamination is achieved. Placement and safe storage of wipes is key to effective use. Manufacturer training is advised.* |
| **Standard 5: Training and Education** – all staff who undertake environmental cleaning tasks have the skills and knowledge to perform their tasks safely and effectively. | **Key Notes** |
| This includes:<br>*a) Current mandatory training in Infection prevention and control.* | This should be undertaken in line with the organisation policy<br><br>*https://www.gov.uk/government/collections/coronavirus-covid-19-personal-protective-equipment-ppe*<br><br>*https://learning.wales.nhs.uk/course/search.php?search=infection+control* |
| *b) Staff are trained and undergo competency assessment in SICP and TBP (including the appropriate use of PPE) prior to working in any clinical or non-clinical environment, according to risk pathway and by task* | *Refer to local implementation policy for PPE* that *will apply*<br><br>*Includes the correct method of donning/doffing of PPE and safe use while worn*<br><br>*New staff induction, refresher training* |

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| c) *Hand hygiene audits of all staff who undertake cleaning tasks are undertaken monthly* | *These audits to be undertaken at ward / departmental level and reported to IPC team or safety group* |
| d) *All staff are taught the principles of cleaning and disinfection along with specific cleaning methods* | *Working high to low, top to bottom, furthest point to nearest point, Cleaning staff should be competency assessed on the use of their cleaning equipment and materials and method to be used for specific environmental areas e.g. floors, toilets, surfaces*<br><br>*Clinical staff should be competency assessed in the decontamination of medical devices and care equipment specific in their area including the use of disinfecting wiping systems* |
| e) *Safe use of cleaning agents, materials and equipment and their disposal* | *For example, in relation to use of chemicals and COSHH awareness* |
| **Standard 6:** Staffing and Supplies – adequate resources have been allocated to ensure these standards can be achieved | **Key Notes** |
| This includes:<br>a. *All staff are allocated to specific area(s) and not be moved between infected and non-infected pathways, except in exceptional circumstances* | *It is acknowledged that in some facilities, staff resources may be limited, and it is recommended that this is managed and mitigated through risk assessment of available resources e.g. management of the rapid response teams*<br><br>*As a minimum staff should be allocated to the same area (ward/dept) per shift or only move from a non-infected cohort/isolation area to an infected cohort/zone if inter shift movements are essential* |
| b. *Organisations need to have the ability to act and react rapidly to urgent requests for cleaning support.* | *Consider the establishment of response teams within acute settings that can react quickly to focus on high-risk settings and high impact public areas.* |

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| c. *Adequate supplies of cleaning agents, materials and equipment are assessed daily and stock maintained* | *Stock levels should be maintained to a sufficient level to prevent supplies from being depleted due to regular cleaning schedule. Regular audits should occur to ensure that stock is being used, is in date and any shortages are being managed promptly.* |
| d. *Adequate staffing is maintained to ensure that the standards are delivered and meet demand resulting from the prescribed cleaning frequencies.* | *Organisations should have arrangements in place to be able to react to the need to increase staffing levels for staff with responsibility for cleaning at short notice.* |
| e. *Ensure that there is a supervisory system in place for all staff involved in cleaning* | |
| f. *Assessment of individual staff risk is documented before working in areas with respiratory viral infections* | *Organisations should promote and encourage staff to be fully vaccinated for COVID-19 and for flu before working in respiratory infected cohort or isolation areas.* |
| g. *Robust support of other services to maintain and increase staffing levels* | *This includes adequate and timely support from other departments with responsibility for and involved in the recruitment process e.g. HR, enablement team, occupational health* |
| **Standard 7:** Technological Solutions – the use of technology to support and augment traditional cleaning methodologies | **Key Notes** |
| This includes<br>a. *Use of technological solutions such as UVC-light (Ultra-Violet) and Hydrogen Peroxide Vapour (HPV) in respiratory viral infections including COVID-19 areas as an adjunct to other methods* | *Routine use is not indicated for respiratory viral infections (including COVID-19 https://www.who.int/publications/i/item/cleaning-and-disinfection-of-environmental-surfaces-inthe-context-of-covid-19) These should be in addition or an adjunct to those described in the standards*<br><br>*The estate must be compatible for the use of such technologies.* |

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| b. *Recognising that a manual detergent clean and preparation of the area is required prior to use of UVC-light, HPV or other vapour or gas technologies* | *Turnaround times need to be factored in when used so that bed capacity is not impacted during periods of high occupancy and patients are not unnecessarily moved to accommodate use as this may contribute to spread of respiratory viruses and other HCAI* |
| c. *Ensuring staff using such technologies adhere to protocols for safe use* | *It is important to maintain safe operation and Health and Safety requirements especially where new staff are employed and to ensure only competent personnel are delegated this responsibility, to ensure both staff and patient safety. Each organisation should have an SOP or similar guidance in place for deployment, safe use, and management of the technology* |
| d. *Employing as part of the organisational cleaning protocol in managing other HCAI* | *Normal use would include following as part of terminal clean post discharge, during incidents or outbreaks of infection or as part of a rolling programme of environmental decontamination where it is feasible to do so as organisations move to business as usual and/or post winter pressures* |
| e. *Ensuring maintenance and service of such machinery is in place* | Organisations are required to ensure that any equipment used is maintained and safe to use |
| **Standard 8:** Audit Compliance – Robust audit and monitoring processes are in place to ensure the cleaning standards are effective | **Key Notes** |
| This includes:<br>a. *Efficacy audits should be in place in all clinical areas to ensure that the correct processes are followed by all who carry out cleaning* | *The audits should be carried out in each at least on an annual basis jointly by clinical and domestic services leads. The audit should cover items such as cleaning equipment, methodologies, correct use of cleaning materials, cleaning schedules and records. The audits should be scored and if an area falls below an agreed standard it should be re-audited within a reasonable time frame* |
| b. *Having protocols in place to identify that cleaning measures are achieving compliance with local and national standards.* | *This will identify the cleaning schedule sign-off for domestic / nursing / estates services.* |

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| c. *Current audit monitoring tool should include an additional generic element specifying Cleaning Schedules.* | *This will identify the cleaning schedule sign-off for domestic / nursing / estates services.*<br><br>*Utilising the approach within a recognised environmental cleaning audit tool (such as Credits 4 Cleaning or Synbiotix)* |
| d. *There is audit sign off across all risk pathways for wards/departments* | *To be signed off by auditor and ward/dept. managers.*<br><br>*Spot checks alone are not sufficient to ensure cleanliness.* |
| e. *Existing audit processes within low-risk pathways are continued and reported and actioned* | *Adhering to current guidance in accordance with the National Standards for cleaning in NHS Wales.* |
| f. *Ensure protocols and procedures are in place to provide monthly reports on compliance, highlighting areas of non-compliance via an exception report.* | *Adhering to current guidance in accordance with the National Standards for cleaning in NHS Wales. These should form part of the regular reporting to patient safety and IPC committees or equivalent* |
| g. *Prior to audit an increased reporting system needs to be in place in order to capture compliance in infected or cohort areas and those assessed as high risk.* | *In order to provide compliance reports – clear monitoring measures need to be in place. The ability to report by element (especially direct patient care) will ensure elements failing on a regular basis are highlighted. When this occurs managers should organise for additional/refresher staff training to be put in place.* |
| h. *Considering the use of more objective indicators in monitoring cleaning efficacy in addition to visual inspection* | *As a tool to check cleaning effectiveness e.g., ATP swabs, fluorescent markers to supplement visual inspection. These can assist when training staff to clean effectively* |

| **Standard 9 –** Responsibility & Accountability: There are clear lines of accountability within the organisation to ensure these standards are implemented and monitored | **Key Notes** |
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| This includes:<br>a. *Board level responsibility for oversight of environmental cleanliness during pandemic*<br>b. *There is a designated lead for environmental cleanliness across all sites from Facilities and Estates and IP&C link*<br>c. *Ward and department managers understand their responsibility for environmental cleanliness*<br>d. *A rapid and robust process in place to report, escalate and address non-compliance with the standards*<br>e. *A cleaning responsibility matrix highlighting service responsibilities of all staff reflecting wards and departments* | *The Executive Nurse has overall responsibility for prevention of HCAI or should designate a deputy in their absence*<br><br>*To ensure all elements of cleaning are designated to appropriate staff so that items are not left off schedules* |

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**Appendix 1**

**Cleaning Frequencies Matrix Tool**

National Standards
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**Appendix 2**

**Cleaning and Disinfection Key Points to Effectiveness**

1. **Cleaning and disinfection are required to remove and destroy respiratory viruses and other pathogens in the environment.**

Some cleaning processes may achieve cleaning and disinfection simultaneously, such as wiping or mopping surfaces with a combined *detergent/ disinfectant solution* containing soap or surfactant e.g. combined chlorine/detergent. Pre-cleaning with detergent is required to remove any visible or non-visible soiling prior to disinfection and before the use of any products that disinfect only. Pre-cleaning is required prior to technological solutions like HPV and for UVC. Failure to -pre-clean can significantly reduce the effectiveness of the disinfectant. The frequency of cleaning will be assessed based on the level of risk e.g. level of clinical interventions, occupancy and footfall, the likelihood of infection transmission between Patients, Visitors and Staff also into consideration the current National Alerts. (see Appendix 1)

2. **Type of Disinfectant required**

Any liquid surface disinfectant used in healthcare must have been verified by testing according to the British & European standards to support bactericidal and virucidal claims (including key respiratory enveloped viruses - SARS-CoV-2 virus that causes COVID-19, RSV and Influenza) and other HCAI pathogens e.g. *Cdiff*, MDRO, non-enveloped viruses, bacteria, yeast & fungi and so:

- BS EN 14485 defines the trials and testing process required, with liquid formulations required to pass
- BS EN 13727 and EN1276 assesses bacterial activity
- BS EN 14476 disinfectants can have full virucidal activity; limited virucidal activity & enveloped virus only.

Any product formulation (liquid, wiping systems) considered for disinfection must demonstrate that it is effective in laboratory testing for enveloped viruses (ideally tested against the SARS-CoV-2). It also needs to be effective in managing other HCAI pathogens so efficacy against both bacteria and viruses is required.

Where an alternative to chlorine at 1000ppm is used then it must be with agreement and advice of an IP&C lead for the organisation.

Technological solutions like UVC/HPV and other vapour technologies will also need validated testing to indicate they achieve the same result.

**3. Coverage and contact time**

All delivery systems e.g. wiping, mopping, soaking, UVC or HPV must have full contact with surfaces being disinfected and must have the contact time with the disinfectant or disinfecting process (as specified by manufacturers' IFU) that achieves destruction of the above enveloped viruses (including SARS-CoV-2) and/or other HCAI pathogens. Both contact and coverage are essential to ensure effective decontamination within a practical time limit especially when the time to dry is a factor.

**4. Direction of cleaning**

To minimise recontamination of an area and transfer of virus and other microorganisms, clean from

- top to bottom
- clean to dirty areas
- the furthest point to nearest point
- low risk to high-risk pathways

Staff need to be trained in manual cleaning processes to prevent recontamination of surfaces e.g. clean large and flat surfaces using an 'S' shape motion

**5. COSHH and Chemical safety**

Material Safety Data Sheet (MSDS) will detail the hazardous components, the concentration and hazard codes (H-codes). These concentration H-codes should be used to risk assess the use of PPE for the chemical in addition to those needed for transmission-based precautions. Chemicals should never be mixed or come into contact with other chemicals. The dilution instructions must be followed carefully to achieve the correct concentration and this must not be exceeded as increasing the concentration does not necessarily improve its effectiveness. Skin irritancy is a common side effect of nearly all

formulations, and as a result, the HSE (Health & Safety Executive) advises skin contact with any formulation should be avoided. Local procedures for safety in the dilution, storage and disposal of products is required in addition to appropriate staff training.

**6. Material types & effects**

Different surfaces present different challenges for all HCAI pathogens due to their geometrically complex surfaces and can be challenging to ensure good contact with the disinfectant. Impervious intact surfaces allow for cleaning and so absorbent surfaces such as fabrics should not be in clinical areas or high risk or infection pathways e.g. soft toys, fabric chairs etc. as they cannot be adequately decontaminated and might be damaged by the disinfectant method. Systems reliant on UVC light need to account for reflectivity, those using heat consider thermal conductivity. Inspection of the surfaces should be conducted to ensure the methods/products used for decontamination are not causing damage by repeat exposure. Manufacture IFU for decontamination of medical devices should be adhered to. Deviation from IFU is not without risk which should be documented and approved via the organisational risk structure.

**7. Monitoring and maintenance of standards**

Once a decontamination process has been successfully implemented, ongoing monitoring should be put in place to ensure the process continues to be implemented effectively. Formal audits and compliance with standards should be reported via organisational safety structures

**8. Training and Competency**

Effective cleaning and decontamination processes are also reliant on the competency of those undertaking these tasks. Assessing competency and providing appropriate training for all staff involved in cleaning and decontamination is essential to ensure their safety and reduce the risk of infection transmission and HCAI.