

Policy Number IP02

Preventing Infection associated with the built environment

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1.0 Policy Statement (Purpose / Objectives of the policy)

The prevention of health care associated infection arising from the demolition, ground preparation, and movement of soil, building or maintenance of building stock is an essential role of Estates, Hotel Services, Facilities and Infection Prevention Teams. Pathogens spread through dust, ground or sewer excavation range from the common, such as MRSA and *Clostridioides difficile* to rare and opportunistic infections of the immunocompromised, potentially resulting in severe harm or death. Most of these infections occur through inhalation of fungal spores, but contact with broken skin or mucous membranes has also been described as a risk factor.

There are two principle means of preventing the spread of these spores. The first is to provide HEPA filtration to high-risk areas and the second, most important method (as all patients will be exposed to the outside environment at some point in their hospital visit) is through environmental controls.

Therefore, effective communication is necessary at all stages of building and maintenance work in order that all projects are appropriately risk assessed in relation to the work being undertaken and the patients and clinical and other areas affected by the work in order to ensure the highest standard of patient safety.

Compliance with this policy forms a key part of the Trust's compliance with the Health and Social Care Act 2008 Code of Practice on the prevention and control of infections and related guidance.

The objectives of this policy are:

- 1.1 To ensure a risk assessment is undertaken for bespoke and routine Estates maintenance works across the organisation.
- 1.2 To ensure that the risk assessment is reviewed at regular intervals, as indicated in [Appendix 1](#), with infection prevention and project managers to ensure continued compliance and highlight any further risks.
- 1.3 For robust project management of infection prevention issues in relation to demolitions, excavations, new builds and refurbishments.
- 1.4 To adequately investigate any infections which are suspected to have arisen from Estates or development work across the organisation.
- 1.5 To ensure building work adjacent to or in close proximity to the Trust sites are discussed with local authority in relation to probable risk to the safety of patients.

NB Cleaning of the environment is explained in the Cleaning Strategy and Operational Cleaning Policy and is therefore not covered in this policy.

In adhering to this Policy, all applicable aspects of the Conflicts of Interest Policy must be considered and addressed. In the case of any inconsistency, the Conflict of Interest Policy is to be considered the primary and overriding Policy.

2.0 Definitions

2.1 Immunocompromised: the state in which the immune system's ability to cope with infection is reduced

2.2 Pathogen: disease causing agent e.g. bacteria, virus or mould

2.3 Spore: a metabolically inactive form of bacterial or fungal cells that are highly resistant to routine methods of decontamination. They may remain viable for many years but in favourable environmental conditions they can germinate and produce disease in susceptible hosts.

3.0 Accountabilities

3.1 Head of Nursing or Senior Matron – Infection Prevention

3.1.1 Provide a named Infection Prevention Team representative for all Development projects and large Estates projects on notification of the works for onwards consultation, site visits, project meetings and review.

3.1.2 Timely completion of risk assessments and inspections so as not to delay works.

3.1.3 Agreeing the educational content of induction and other educational materials to support this policy.

3.1.4 Final review of the environment following the domestic clean.

3.1.5 Alert surrounding areas considered at risk of necessary actions to limit dust/spores from entering their areas.

3.1.6 Undertake at least monthly site visits and audit actions arising from risk assessment.

3.2 Head of Estates Development

3.2.1 To provide the Infection Prevention team with the Capital plan each year on completion

3.2.2 To provide the Infection prevention Team with any new projects not listed on the Capital Plan as they are approved

3.2.3 To attend an Annual meeting with the Infection Prevention and Control team to review the operational delivery of this policy and the Capital plan and any anticipated issues for the coming year.

3.2.4 To communicate all known planning applications received for nearby/adjacent projects to the Trust sites to the Infection Prevention Team via email.

3.2.4 To provide assurance that all Estates Development project managers are informed of this policy and rigorously follow it.

3.2.5 To ensure all building contractors have sufficient information in their induction processes relating to the infection risk as associated with dust and ground disturbance.

3.3 Head of Estates Management

3.3.1 Attends an annual meeting with the Infection prevention team to review the operational delivery of this policy and the Capital plan and any anticipated issues for the coming year

3.3.2 Must inform the Infection Prevention Team of any large planned works as they arise.

3.3.3 Must risk assess all works of type B1, B2, C1 or C2 as outlined in [Appendix 1](#) and follow actions the actions outlined.

3.3.4 Must communicate any works of B3, C3, D1, D2, D3 to the Infection Prevention Team as early as possible prior to commencement.

3.3.5 Must ensure that service managers within Estates are aware of this policy and its execution.

3.3.6 Must ensure all building contractors have sufficient information in their inductions relating to the infection risks associated with dust and ground disturbance

3.3.7 Provide assurance that service managers within Estates are aware of this policy and its execution. That Estates team Managers rigorously follow this policy when undertaking remedial or planned works.

3.4 Estates Managers

3.4.1 Must Inform the Infection Prevention Team immediately if urgent works have been undertaken and the actions in the risk assessment have not been able to be carried out or have not occurred for another reason. This will involve contacting the on-call Microbiologist out of hours for advice if the patient environment is significantly damaged/ contaminated, for example.

A revised risk assessment and Datix incident report will be required at the earliest opportunity to evaluate further risk and identify actions required to maintain safety.

3.4.2 Major sewerage leak/flood in inpatient area where patient may have contact or need to be evacuated.

3.4.3 Building/ceiling collapse (uncontrolled building dust).

3.4.4 Facilitate site visits as required by Infection Prevention Team members.

3.5 Estates Development Project Managers

3.5.1 Include a member of the Infection Prevention Team in project planning meetings from the outset.

3.5.2 Must ensure that actions arising from the risk assessment are discussed with the named Infection Prevention Lead prior to the works proceeding for practicality and likelihood of delivery. Where this is not possible, undertaking a separate risk assessment explaining how the risk will be reduced.

3.6 Group Managers

3.6.1 Must discuss any potential business cases for renovation / excavation / demolition / building and change of use with a member of the Infection Prevention Team during the business planning process.

3.7 All clinical staff

3.7.1 Must maintain a high degree of suspicion of fungal infections in immunocompromised patients whilst excavation, demolition and building works are underway and in the period following the completion of such works.

3.7.2 Must follow any specific instructions provided by the Infection Prevention Team to limit spores/dust arising from building/demolition works in their area.

3.7.3 Must discuss clinically unwell patients where fungal infections are suspected promptly with a Microbiologist and must complete a Datix entry to identify potential harm

3.7.4 Must alert the Infection Prevention Team or a Microbiologist to any patients who have suspected or proven fungal infections potentially linked to building works.

4.0 Policy Detail

4.1 Work arising from Estates maintenance

Estate maintenance works may be repetitive, with short notice and out of hours. They can, however, still pose a risk to vulnerable patient groups.

4.1.1 The risk assessment in [Appendix 1](#) must be applied to all jobs assessed as Class 2 or above. This will be undertaken through the use of agreed, generic risk assessments wherever possible.

4.1.2 The Infection Prevention Team will agree standard approaches to high frequency jobs to prevent delays.

4.1.3 For jobs assessed as class 3 on the risk assessment [Appendix 1](#), an Infection Prevention Team member must be consulted before the job wherever possible and retrospectively sign the job off if undertaken urgently out of hours.

4.2 Trust developments of the built environment

The Infection Prevention Team must be communicated with at all stages of the design, demolition, excavation or renovation of the physical area. This applies to projects internal and external to builds and includes all Trust sites e.g. hospitals, health centres and dental surgeries. This will be done through the following:

4.2.1 Business Case Process for proposed Development Works to the estate.

Where proposals include renovation/demolition/excavation/change of use that an Infection Prevention Nurse is linked to all clinical areas to the Trust and must be contacted as part of the outline business case

An Infection Prevention Nurse is linked to all clinical areas of the Trust and must be contacted as part of the outline business planning process.

4.2.2 Project design brief stage of planned renovation / demolition / excavation / building

Consultation with the Infection Prevention Nurse commences as and when initial sketch plans are developed, Infection Prevention must be contacted at this stage to advise on specific issues arising from any design proposals.

4.2.3 Following Capital Review Group approval to the project works

4.2.3.1 The Estates Project Manager (developments) or Estates Manager must complete the risk assessment in [Appendix 1](#) and formally inform the Infection Prevention Team as per Health Building Note 00-99.

4.2.3.2 Where any suggested actions cannot be carried out due to practicality then an additional risk assessment using the Trust's standard risk assessment must be completed outlining alternative ways to address the risk. Any deviations from this must be documented on the original risk assessment.

4.2.3.3 Following receipt of the completed risk assessment ([Appendix 1](#)), the Infection Prevention Team will complete part A of the standard checklist completed by the representative. This checklist can also be used as a prompt by other members of the Divisions/Departments/Estates Development/Estates Management. see [Appendix 2](#)

4.2.4 Construction stage

4.2.4.1 During construction an Infection Prevention Team representative will undertake a minimum of a monthly site visit to audit the actions agreed in the risk assessment and address any previously raised concerns. These will be facilitated by the Project Manager for the scheme.

4.2.4.2 Any unaddressed concerns will be notified to the Head of Estates/Estates Development as appropriate.

4.2.5 Commissioning stage

A suitable member of the Infection Prevention Team will attend the final site visit to identify any final snags, discuss decommissioning of previous facility (if appropriate) and inspect final fixtures and fittings. (See [Appendix 2](#) part C). This must be done with sufficient time for a repeat clean should any issues require addressing.

4.3 Clinical Actions

Clinical areas identified as high risk or at risk of contamination with building dust or spores generated from ground works must strictly observe the following.

NB Several of these actions may instigate further risk assessment if for prolonged periods and these must be coordinated by the local area.

4.3.1 Example actions advised by the Infection Prevention Team for the duration of the works may include some or all of the below. This list is not exhaustive:

4.3.1.1 Closure of windows

4.3.1.2 Discontinuation of use of fans

4.3.1.3 Replacement of filters

4.3.1.4 Additional cleaning

4.3.1.5 Change in cleaning methods

4.3.1.6 Move to single use porous items such as gauze, tape and bandages.

4.3.1.7 Reducing thoroughfare of staff/vehicles

4.3.1.8 Use of HEPA filtered vacuum cleaners

4.3.1.9 Sealing air intakes

4.3.1.10 Increased change of filters

4.3.1.11 Changing access to avoid building waste being taken through patient areas

4.3.1.12 Limit removal of building waste materials to agreed timescales and ensure adequately enclosed to limit dust distribution.

- 4.3.1.13 Reducing access to areas affected by building works.
- 4.3.1.14 Delay/divert admissions to the area
- 4.3.2. Identify specific patients at risk and assess the necessity of their treatment in the area near to the works.
- 4.3.3 Discuss with Microbiologists any necessary changes in fungal prophylaxis protocols.
- 4.3.4 Discuss patients suspected to have fungal infections with a Microbiologist without delay.

4.4 Building works taking place off Trust premises but in surrounding area

Incidents have been reported of fungal infections in hospital patients following building works adjacent or near to hospital premises or those which cause dust to travel long distance (e.g. work at height or demolition using explosives) especially in vulnerable groups of patients. As patients are increasingly receiving immunosuppressive drug regimes in the community, it is important that investigation of the patient groups and associated risks takes place not only when work planned is on site but that which is near to the hospital and other health facilities run by the Trust. The process below will be used to identify significant off premises construction work.

- 4.4.1 All building applications received by the Head of Estates Development for works near to any Trust property will be notified to the Infection Prevention Team by email as soon as possible rwh-tr.InfectionPrevention@nhs.net
- 4.4.2 A discussion will take place with the Head of Developments to identify any foreseen risk.
- 4.4.3 The planning application reference and rational for concern must be discussed with the Director of Public Health at Wolverhampton City Council or their nominated representative namely the Public Health NHS facing team for appropriate advice and signposting to the relevant stakeholder.
- 4.4.4 Following confirmation a risk assessment using [Appendix 1](#) will be undertaken and recommendations requested by the Trust to the respective Local Authority nominated representative.

5.0 Financial Risk Assessment

1	Does the implementation of this policy require any additional Capital resources	No
2	Does the implementation of this policy require additional revenue resources	No
3	Does the implementation of this policy require additional manpower	No
4	Does the implementation of this policy release any manpower costs through a change in practice	No

5	Are there additional staff training costs associated with implementing this policy which cannot be delivered through current training programmes or allocated training times for staff	No
	Other comments	

6.0 Equality Impact Assessment

Completed

7.0 Maintenance

The Infection Prevention Team will be responsible for the maintenance and review of this Policy in accordance with national guideline and best practice at least every three years.

8.0 Communication and Training

8.1 Training in this Policy will be provided by the Infection Prevention Team to Estates staff as required to ensure relevant current staff members are aware of the policy and new staff members receive the information on induction.

8.2 Changes to the Policy will be notified via Developments, Estates and Infection Prevention Governance meetings.

8.3 The Policy will be available on the Trust Intranet.

8.4 Infection Prevention Nurses and practitioners will have the processes outlined in this policy as part of their competency assessment and local induction.

9.0 Audit Process

Criterion	Lead	Monitoring method	Frequency	Committee
Each project will be audited monthly based on the recommendations of the risk assessment	Head of Nursing Infection Prevention	RWT Environment Group standard agenda item. Infection Prevention Team Meetings Infection Prevention Surveillance Meetings	Monthly during works	Infection Prevention and Control Group
Each project will be monitored for exception or deviation from the risk assessment by	Head of Estates / Head of Developments	RWT Environment Group standard agenda item.	Monthly during works	

the Project Manager				
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10.0 References - Legal, professional or national guidelines

Department of Health; 2013; Health Building Note 00-09 Infection control in the built environment; DH; London

Health and Social Care Act 2008 Code of Practice on the prevention and control of infections and related guidance Updated 2011; London

[RWT OP10 Risk Management and patient safety reporting policy](#)

Part A - Document Control

Policy number and Policy version: IP02	Policy Title Preventing Infection associated with the built environment	Status: Final		Author: Sue Harper Director Sponsor: Chief Nurse / Director for Infection Prevention and Control
Version / Amendment History	Version	Date	Author	Reason
	1	06/10/14	Vanessa Whatley, Head of Nursing – Infection Prevention	Replaces Estates Standard Operating Procedure and Risk assessment
	2	October 2018	Vanessa Whatley, Head of Nursing – Infection Prevention	Review
3	30/04/2021	Sue Harper Senior IPN	Policy review as 3 years since last revision	
Intended Recipients: Estates and Developments teams are required to refer to this policy when planning refurbishment and building projects				
Consultation Group Date: May 7 th 2021 Infection Prevention Team and Consultant Microbiologists, Infection Prevention and Control Group members (IPCG)				
Name and date of Trust level group where Reviewed		Reviewed by IPCG 07/05/2021 Trust Policy Group – August 2021		
Name and date of final approval committee		Trust Management Committee – September 2021		
Date of Policy issue		October 2021		
Review Date and Frequency (standard review frequency is 3 yearly unless otherwise indicated)		Standard frequency of 3 yearly unless new Health regulation guidance needs to be reflected in policy.		
Training and Dissemination: Policy currently present within Infection Prevention policies on RWT intranet. Training for the policy is coordinated by Estates and Developments teams and within development role for IPNs who undertake risk assessments.				
Publishing Requirements: Can this document be published on the Trust’s public page:				

<p>Yes</p> <p>If yes you must ensure that you have read and have fully considered it meets the requirements outlined in sections 1.9, 3.7 and 3.9 of OP01, Governance of Trust-wide Strategy/Policy/Procedure/Guidelines and Local Procedure and Guidelines, as well as considering any redactions that will be required prior to publication.</p>	
<p>To be read in conjunction with:</p>	
<p>Initial Equality Impact Assessment (all policies): Completed Yes / Full Equality Impact assessment (as required): Completed Yes If you require this document in an alternative format e.g., larger print please contact Policy Administrator8904</p>	
<p>Monitoring arrangements and Committee</p>	<p>Report presented to IPCG</p>
<p>Document summary/key issues covered. Content reviewed from existing policy and minor modifications included concerning sharing project plans between Estates and IP teams. Policy includes a risk assessment to be completed where building work and refurbishment takes place within RWT. Risk assessment directs the level of precautionary measures required to limit exposure to dust generated by building works depending upon the vulnerability of the patient group within an area.</p>	
<p>Key words for intranet searching purposes</p>	<p>Built Environment</p>
<p>High Risk Policy? Definition:</p> <ul style="list-style-type: none"> • Contains information in the public domain that may present additional risk to the public e.g. contains detailed images of means of strangulation. • References to individually identifiable cases. • References to commercially sensitive or confidential systems. <p>If a policy is considered to be high risk it will be the responsibility of the author and director sponsor to ensure it is redacted to the requestee.</p>	<p>No (delete as appropriate) If Yes include the following sentence and relevant information in the Intended Recipients section above – In the event that this is policy is made available to the public the following information should be redacted:</p>

Part B

Ratification Assurance Statement

Name of document: IP02 Preventing Infection associated with the built environment- version 2

Name of author: V1 revised by Sue Harper

Job Title: Senior Infection Prevention Nurse

I, Susan Harper the above named author confirm that:

- The Strategy/Policy/Procedure/Guidelines (please delete) presented for ratification meet all legislative, best practice and other guidance issued and known to me at the time of development of the said document.
- I am not aware of any omissions to the said document, and I will bring to the attention of the Executive Director any information which may affect the validity of the document presented as soon as this becomes known.
- The document meets the requirements as outlined in the document entitled Governance of Trust- wide Strategy/Policy/Procedure/Guidelines and Local Procedure and Guidelines (OP01).
- The document meets the requirements of the NHSLA Risk Management Standards to achieve as a minimum level 2 compliance, where applicable.
- I have undertaken appropriate and thorough consultation on this document and I have detailed the names of those individuals who responded as part of the consultation within the document. I have also fed back to responders to the consultation on the changes made to the document following consultation.
- I will send the document and signed ratification checklist to the Policy Administrator for publication at my earliest opportunity following ratification.
- I will keep this document under review and ensure that it is reviewed prior to the review date.

Signature of Author:

Date:

Name of Person Ratifying this document (Director or Nominee):

Job Title:

Signature:

- I, the named Director (or their nominee) am responsible for the overall good governance and management of this document including its timely review and updates and confirming a new author should the current post-holder/author change.

To the person approving this document:

Please ensure this page has been completed correctly, then print, sign and email this page only to: The Policy Administrator

Implementation Plan template for Strategy / Policy / procedural documents

To be completed showing all actions needed to implement the Strategy/policy/Procedural document. If a more detailed action plan exists eg for a strategy, this can be referred to here or include key headline extracts. This implementation plan (Attachment 8) must be completed and submitted with the policy for consideration / approval.

Title of document:	IP02 Preventing Infection associated with the built environment		
Date approved:	April 2021		
Is the Strategy/Policy/Procedural document new or existing?	Existing	Implementation lead name and contact details if different from the author.	Kim Corbett Senior Matron Infection Prevention Ext 88755
1. If new you have created a new implementation plan? 2. If existing you have reviewed/added to the last implementation plan?	Yes		
Implementation actions to be considered (add additional issues where necessary)			
Implementation Issue	Action Summary		Action lead / s (Timescale for completion)
For Strategies; Consider 1. Development of a pocket guide of strategy aims for staff 2. Include responsibilities of staff in relation to strategy in pocket guide.	Updated on the Intranet page in Infection Prevention policy suite Risk assessment available to Estates team		1. Infection Prevention Senior Matron August 2021
Training; Consider 1. Mandatory training approval process 2. Communication of training programmes to targeted staff or development of e training on kite	Estates project managers will require updates and induction. Infection prevention staff will require updates and induction		2. Infection Prevention Senior Matron 3. Head of Estates Capital Developments Head of Estates Maintenance August 2021
Development of Forms, leaflets etc; Consider 1. Any forms developed for use and retention within the clinical record MUST be approved by Health Records Group prior to roll out. 2. All patient leaflets MUST be approved within the Trust Leaflet process in OP46 3. How to communicate new form/leaflet 4. Where/how staff will access form/leaflet and advise staff 5. Whether consultation requires patient input	Not applicable		

<p>Strategy / Policy / Procedure communication; Consider</p> <ol style="list-style-type: none"> 1. Key communication messages from the policy / procedure, who to and how? 2. In addition to general communication, methods of targeted communication to relevant staff groups. 	<p>Meet with Capital Estates Manager to update them on the changes</p>	<p>Infection Prevention Senior Matron</p> <p>August 2021</p>
<p>Financial cost/Procurement implications Consider</p> <ol style="list-style-type: none"> 1. Business case development and approval process 2. Liaison with procurement on product/equipment availability or cascade. 	<p>Monitor any additional costs associated with current schemes</p> <p>Identify costs in business cases for capital developments in high risk areas (e.g. Clinical haematology)</p>	<p>Head of Estates – Capital Development</p>
<p>Other specific Policy issues / actions as required e.g. Identify risks surrounding failure to implement, anticipated gaps or barriers to implementation.</p>	<p>Risks of failure to implement policy include</p> <ol style="list-style-type: none"> 1. Non-compliance with the Health Act 2008(Hygiene Code 2015) 2. HSE enforcement notices 3. Development delay due to retrospective action/unforeseen costs 	<ol style="list-style-type: none"> 1. Senior Matron Infection Prevention 2. Head of Estates Capital Developments – 3. Head of Estates Maintenance

Appendix 1

INFECTION PREVENTION RISK ASSESSMENT FOR CONSTRUCTION, DEMOLITION, EXCAVATION, REFURBISHMENT, MAINTENANCE AND MINOR WORKS

Location of Construction / Works:	Project/Works Start Date:
	Estimated Duration:
Description of Works: RWT works / External Works in close proximity to site (if so alert Public Health)	
Project Co-ordinator:	Ext:
Principal Designer:	Ext:
Building Manager	Ext:

SECTION 1

CONSTRUCTION, DEMOLITION, EXCAVATION OR REFURBISHMENT

	TYPE A: Inspection, non-invasive activity
	TYPE B: Small scale, short duration, minimal dust generating activity
	TYPE C: Activity that generates moderate to high levels of dust, requires greater than one week of non-consecutive shifts for completion
	TYPE D: Major duration and construction activities requiring consecutive work shifts

SECTION 2

INFECTION CONTROL RISK OF AREA

	GROUP 1: Lowest
	GROUP 2: Medium
	GROUP 3: Highest

TABLE 1

Group 1 Lowest	Group 2 Medium	Group 3 Highest
- Non-patient areas that are not in proximity to any clinical or non-clinical high risk areas	- All other areas e.g. general wards and clean/treatment room and food preparation area	- Cardiology - All operating suites - All cardiac catheterisation and angiography areas - Dialysis and transport units - Oncology/Radiotherapy - Clinical Haematology Unit - Pharmacy Clean Room - Radiopharmacy Clean Room - Pathology Laboratory - CCU, HDU and SCBU/NNU - CSSD - Respiratory centre - Paediatric department - Areas adjacent to any of the above or near to air intakes for any of the above

SECTION 3

Now identify the “risk class” by correlating “construction type” with “risk group” (from 1 and 2 above) in the matrix below.

RISK ASSESSMENT MATRIX

Construction activity type				
Risk Group	Type A	Type B	Type C	Type D
Group 1	Class 1	Class 2	Class 2	Class 3
Group 2	Class 1	Class 2	Class 3	Class 3
Group 3	Class 2	Class 3	Class 3	Class 4

SECTION 4

After identifying the risk class from Section 3 above, identify which of the risk-reduction measures are appropriate from those recommended for that class. Obtain agreement with infection prevention lead for the project.

Class 1	1. Execute work by methods to minimise dust from construction 2. Immediately replace any ceiling tile displaced for visual inspection Review monthly
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Class 2	<ol style="list-style-type: none"> 1. Close windows 2. Where appropriate, isolate HVAC (heating, ventilating, and air conditioning) system in areas where work is being performed 3. Provide active means to prevent airborne dust from dispersing into atmosphere if practicable, i.e. dust bag to machine 4. Water-mist work surfaces to control dust while cutting 5. Avoid pooling of water which may be prolonged 6. Seal unused doors with duct-tape 7. Block off and seal air-vents 8. Wipe work surfaces with detergent 9. Contain construction waste before transport in tightly covered containers 10. Wet –mop and vacuum with filtered vacuum cleaner before leaving work area 11. Place dust-attracting mat at entrance and exit of work area (tacky mat) 12. Remove isolation of HVAC system 13. Liaise with Domestic Services for spillages and leaks <p>Review every 2 weeks</p>
Class 3	<ol style="list-style-type: none"> 1. Close windows 2. Where appropriate, isolate HVAC system in area where work is being done to prevent contamination of duct system 3. Complete all critical barriers and implement dust control methods before construction begins 4. Maintain negative air pressure within work site. Use HEPA (high efficiency particulate air) – equipped air filtration unit if there be a risk that air will enter building 5. Do not remove barriers from work area until complete project is clinically clean 6. Vacuum with filtered vacuum cleaner during works 7. Wet-mop area during works 8. Remove barrier material carefully to minimise spreading of dust and debris associated with construction 9. Contain construction waste before transport in tightly covered containers 10. Remove isolation of HVAC system in areas where work has been done and appropriate checks performed 11. Liaise with Domestic Services for spillages and leaks <p>Review weekly</p>
Class 4	<ol style="list-style-type: none"> 1. Close windows 2. Isolate HVAC system in area where work is being done to prevent contamination of duct system 3. Complete all critical barriers and implement dust control methods before construction begins 4. Maintain negative air pressure within work site using HEPA-equipped air filtration unit 5. Seal holes, pipes, conduits and punctures appropriately 6. Construct airlock and require all personnel to remove dirty apparel and clean down before leaving the work site. The use of cloth/paper disposable overall/shoes, etc., may be required 7. Do not remove barriers from work area until completed project is thoroughly cleaned (as before) and repeat clinical clean after barrier removed 8. Vacuum work area with detergent during works 9. Remove barrier materials carefully to minimise spreading of dust and debris associated with construction 10. Contain construction waste before transport in tightly covered and sealed containers 11. Remove isolation of HVAC system in areas where work has been done and appropriate checks performed 12. Liaise with Domestic Services for spillages and leaks <p>Review weekly</p>

SECTION 5

FORWARD TO INFECTION PREVENTION TEAM

Requested By (Estates Project /Building Manager):	Authorised By (Infection Prevention Nurse):
Date:	Date:

SECTION 6

INFECTION PREVENTION TEAM TO COMPLETE

Date Received by Infection Prevention Team	Action to be taken and review dates	Link to other Files/Documents/Risk Assessments including RAMS	Signature

Authorised:

Date:

SECTION 7

Please return completed form to Project Co-ordinator/Building Manager, Directorate of Estate Management

Name:	Position:	Date received:	Signature:
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Appendix 2 Checklist for use by infection Prevention Staff risk assessing developments

	Point for consideration Part A (concept/feasibility stage)	Comment	Completed (signature)
A1	The effect the number of additional beds will have on current policy and practice including domestic services, catering, sterile services		
A2	Arrangements have been made for any additional cleaning		
A3	Any specialist IP/laboratory requirements		
A4	Location and relationships with adjacent departments, any impact on these (cleaning, access, equipment sharing etc.)		
A5	Decontamination facilities required in addition to sluice and domestic room		
A6	Impact of proposed design on water system/ventilation		
A7	Work/Bed space area proposed is sufficient		
A7	Specific patient group considerations		
A8	Future maintenance requirements, how will area be deep cleaned, nearest decant facility,		

	Point for consideration Part B (through planning stages)	Issue	Completed (signature)
B1	Confirm operational procedures (patient group/any exclusions)	Potential for cross infection	
B2	Establish baseline and future staffing profiles	Decontamination	
B3	Establish baseline and future revenue budgets (equipment replacement/maintenance)	Decontamination	
B4	Establish Equipment (& decontamination) requirements	Decontamination	
B5	Procurement and selection of furnishings (in line with trust agreed furnishings?) and equipment	Decontamination	
B6	Missing rooms/facilities (number of isolation rooms appropriate & en-suite has been discussed)	Decontamination/isolation	
B7	Appropriate placing/accessing hand hygiene products	Hand Hygiene	
B8	Single bed room/Ventilation examined	Isolation	
B9	Water supply heating and plumbing	Water borne infections	
B10	Hand washing sinks comply to HBN 04-01 (for community see	Water borne infections	

	also HBN 00-03)		
B11	Storage for: PPE Movable equipment (including hoists,/Pat slides) Clean patient items Clean linen Sterile services (IV fluids/sterile equipment) Commodes Bedpans Healthcare waste Specimen collection	Potential for contamination	
B12	Surfaces walls/ceilings/work surfaces/floor coverings/furnishings intact and impervious to fluids.	Decontamination/Potential for contamination	
B13	Utility rooms/sluite/Hotel services room (with decontamination sink /janitorial unit and/or separate hand wash basin)	Decontamination	
B14	Changing rooms/staff toilet facilities and hand hygiene	Decontamination	
B15	Water/Plumbing risk assessment has been undertaken as per RWT Water safety plan	Water safety	

B16	Actions identified in risk assessment in part A are being followed.	Potential for Contamination	
B17	Light fittings are easy to clean and unlikely to accumulate dust	Potential for Contamination	
B18	Radiators are accessible and cleanable and designed to accumulate minimum amounts of dust. Covers are removable to aid cleaning	Potential for contamination	
B19	Curtains/blinds will withstand cleaning and laundering.	Decontamination/Potential for contamination	
B20	Arrangements are in place for the segregation of waste/used linen storage and minimal handling prior to leaving the ward	Potential for Contamination	
	Point for consideration Part C (commissioning build/refurbishment)	Comment	Completed (signature)
C1	IP Training requirements are completed/planned		
C2	Hand gels/Soap dispensers/Hand cream/Paper towel holders/and toilet paper dispensers are appropriately placed		
C3	Waste bins/glove *& apron dispensers and sharps bins are placed correctly		

C4	Water safety RA actions are in place		
C5	Surfaces are smooth and impermeable to liquids		
C6	Environment is visibly clean dust free		
C7	HPV clean is completed		
C8	Specific cleaning requirements have been addressed		
C9	Specific Decontamination requirements have been addressed		
C10	Specific ventilation details are available for inspection and training arranged		
C11	Decommissioning of redundant area is planned		
C12	Date agreed for occupancy: Date _____		

Appendix 3 Relevant Building Publications to Infection Prevention Services

Health Building Notes

Health Building Note 04-01 Adult inpatient accommodation

Health Building Note 00-02 Sanitary Spaces

Health Building Note 00-03 Clinical, clinical support and specialist spaces

Health Building Note 00-10 Part A flooring

Health Building Note 00-10 Part B Walls and Ceilings

Health Building Note 00-10 Part C Sanitary assemblies

Health building Note 00-04 Supplement 1 Isolation facilities for infection patient sin acute settings

Health Building Note 04-02 Critical Care Areas

Health Building Note 15-01 Accident and Emergency Departments

Health Building Note 11-01 Facilities for primary and community care areas

Health Technical Memoranda

Health Technical Memorandum 02-01 Part A. Medical gas pipeline systems: design, installation, validation and verification.

Health Technical Memorandum 02-01 Part B Medical gas pipeline systems: operational management.

Health Technical Memorandum 03-01 Part A. Specialised ventilation for healthcare premises: design and validation.

Health Technical Memorandum 03-01 Part B. Specialised ventilation for healthcare premises: operational management.

Health Technical Memorandum 04-01 Part A. The control of Legionella, hygiene, “safe” hot water, cold water and drinking water systems: design, installation and testing.

Health Technical Memorandum 04-01 Part B. The control of Legionella, hygiene, “safe” hot water, cold water and drinking water systems: operational management.

Health Technical Memorandum 04-01. Addendum: Pseudomonas aeruginosa – advice for augmented care units.

Health Technical Memorandum 07-01. Safe management of healthcare waste.

Health Technical Memorandum 08-03. Bed head services.

Health Technical Memorandum 2009. Pneumatic air tube transport systems.