

**Joint Policy for Cumbria Partnership Foundation Trust & North Cumbria  
University Hospital NHS Trust**

**Policy Title: Aspergillosis Policy –  
Nosocomial prevention and control during building work**

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## Policy On A Page

### **SUMMARY & AIM**

It is estimated that 40% of cases of invasive Aspergillosis are Nosocomial (hospital related). The purpose of this Policy is to indicate the measures that must be taken to reduce the risk of Nosocomial Aspergillosis to vulnerable patients during building work.

### **KEY REQUIREMENTS**

1. Notification of all planned construction works on each hospital site
2. Communications between all relevant staff involved.
3. Construction works completed in line with this policy in the prevention of nosocomial aspergillus.

### **TARGET AUDIENCE:**

This policy is applicable to staff involved in direct patient care particularly those dealing with the risk groups identified within this policy and contractors involved in construction, demolition and renovation activities

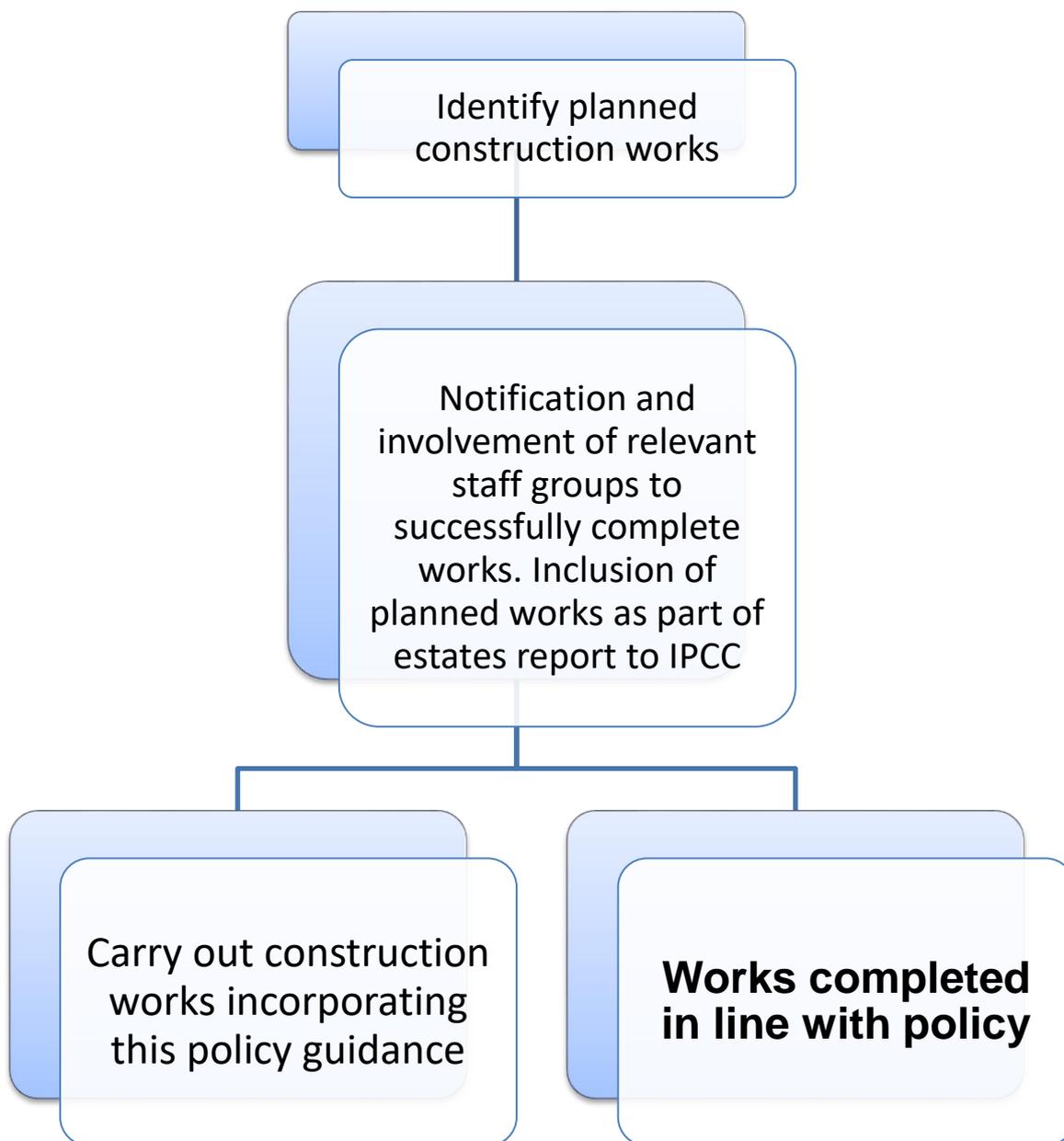
### **TRAINING:**

This policy is not part of the mandatory training process but must be consulted by staff (clinical, estates and facilities and infection control) prior to any building work being carried out to ensure that appropriate actions are taken.

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**SUMMARY FLOWCHART:**



## **1. INTRODUCTION**

This policy will outline the local arrangements for compliance with the HPSC 2018 National Guidance which has several key recommendations:

Measures should be taken to protect the growing populations of patients at-risk of acquiring Aspergillus infection as a consequence of hospital renovation, construction or demolition work in or near to clinical areas.

The hospital Infection Prevention and Control Team (IPCT) should take the lead in informing management of the risks involved by drafting local policies based on national and international guidelines.

Hospital Management must give sufficient notice (appropriate to the complexity of the project) to all interested parties including the IPCT of any planned activities before they start so that a risk assessment and appropriate preventive measures can be put in place to protect vulnerable patients.

Contractors must agree to, and sign, a Construction Permit and be compliant with the local Infection Prevention and Control policy.

Major internal or external works may require transfer of at-risk patients to another part of the hospital if the environment cannot be protected from ingress of airborne fungal spores.

Affected clinical areas should be monitored for ingress of dust in spite of preventive measures, and in the highest risk groups air sampling should be used to monitor fungal counts.

High-efficiency particulate air (HEPA)-filtered positive pressure facilities are preferred for the protection of high and very high-risk patients during major internal, and non-containable external activities.

In consultation with the clinical team(s) involved, consideration should be given to prescribing antifungal drug prophylaxis in selected patients based on a risk assessment.

Patients should be monitored throughout the project for clinical, radiological and mycological evidence that would suggest a diagnosis of invasive pulmonary aspergillosis.

The Microbiology laboratory should inform the IPCT of any increase in isolation of Aspergillus spp. From respiratory specimens that are above baseline/expected rates.

### **1.1 Aspergillus spores**

Are superbly adapted to airborne dissemination. These spores are passively liberated during building activities and can be transported great distances as airborne particles by normal atmospheric conditions such as convection currents

and wind. Airborne transmission is the principal route of transmission in the hospital environment. The respiratory tract is the most common portal of entry and the small diameter of spores (2.5-3.5 µm) permits them to reach the pulmonary alveolar spaces, where they may germinate to form hyphae. Pulmonary Aspergillosis may then develop in at risk individuals following inhalation of airborne fungal spores and high spore counts within patient-care areas represent an extrinsic risk factor for invasive disease.

## **1.2 Nosocomial outbreaks**

of invasive Aspergillosis have become a well-recognised complication of construction, demolition or renovation activities in or near hospital wards or departments that accommodate immunocompromised patients. The construction activities implicated include:

- I. General construction and renovation work
- II. Disturbance of soil resulting from earth works associated with building construction and site development
- III. Removal of suspended ceiling tiles
- IV. Removal of fibrous insulation material
- V. Opening up of service distribution shafts

Outbreaks have also been associated with improper operation and poor maintenance of sophisticated air ventilation systems. Furthermore, any dust generating activities such as maintaining a ventilation system, cleaning, vacuuming and dry mopping can render *Aspergillus* spp. airborne.

## **1.3 Major construction in healthcare**

Where major construction, demolition or renovation projects are planned, a multi-disciplinary team comprising of hospital managers, governance facilitators, estates and facilities personnel, designers, contractors, infection control staff and relevant clinicians should be established to develop and monitor the implementation of appropriate infection control and risk management strategies. Clear lines of communication and areas of responsibility must be established at the planning phase. More minor works can be managed through consultation with infection prevention and control and appropriate risk assessment.

Aspergillosis is a severe, potentially fatal illness in immunocompromised patients.

## **2. PURPOSE**

The purpose of this policy is to indicate those measures that must be taken to reduce the risk of Nosocomial Aspergillosis during building work.

### **3. POLICY**

#### **3.1 At-risk patients and risk factors**

The following classification of “at risk” is based on guidelines published by the Irish National Disease Surveillance Centre (2018). However, this list is not exhaustive and all patients should be individually risk assessed to determine if they are at risk of developing IA.

Group 1 - No evidence of risk

1. Staff members<sup>2</sup>, service providers and contractors
2. All patients not listed in Groups 2-4 below

Group 2 - Increased risk

1. Patients on prolonged courses of high dose steroids<sup>3</sup> or tumour necrosis factor  $\alpha$  (TNF- $\alpha$ ) antagonists, particularly those hospitalised for prolonged periods
2. Severely immunosuppressed AIDS patients
3. Patients undergoing mechanical ventilation
4. Non-neutropenic patients on chemotherapy<sup>4</sup>
5. Dialysis patients

Group 3 - High risk

1. Patients with neutropenia for less than 14 days following chemotherapy
2. Adult acute lymphoblastic leukaemia patients on high dose steroid therapy<sup>3</sup>
3. Solid organ transplantation
4. Patients with Chronic Granulomatous Disorder (CGD)
5. Neonates in intensive care units
6. COPD patients meeting GOLD stage III and IV criteria<sup>5</sup> and in intensive care or high dependency units
7. Patients with extensive burns

Group 4 - Very high risk

1. Allogeneic haematopoietic stem cell transplantation<sup>6</sup>
  - a. during the neutropenic period
  - b. with graft-versus-host disease requiring steroid  $\pm$  other immunosuppressive therapy
2. Autologous haematopoietic stem cell transplantation<sup>6</sup>, i.e. during the neutropenic period
3. Non-myeloablative transplantation
4. Children with severe combined immunodeficiency syndrome (SCID)
5. Prolonged neutropenia for greater than 14 days following chemotherapy or immunosuppressive therapy (including acute myeloid leukaemia)
6. Aplastic anaemia patients

Note: Cystic fibrosis patients should also be considered. Each cystic fibrosis patient is assigned to one of the above four categories depending on the stage of his/her illness.

### 3.2 Preventative Measures to Control Invasive Aspergillosis

The preventative measures required must be identified in advance during the initial risk assessment and will be included in the tender and contract documents. A mechanism will be established to identify who has the authority to stop a construction project if there is a significant breach in the preventative measures.

Large scale construction/renovation projects external to but proximal to the hospital may represent similar risks. Hospital managers must ensure that they are aware of such activities and institute precautionary measures to protect at-risk patients where appropriate based on the findings of risk assessment/s.

**The key to eliminating *Aspergillus* infection is first to minimise the dust generated during construction activity and second, to prevent dust infiltration into adjacent patient care areas.**

When planning major hospital construction works, the preventative measures required must be identified in advance during the initial risk assessment and the estates and facilities staff must work with and involve the Infection Prevention and Control Team to manage the risks.

Preventative measures will vary from building activity to building activity but can be considered under 3 broad areas:

#### 3.2.1 Construction and ventilation measures

##### a) Measures to reduce dust emissions from construction area

The construction area must be sealed fully during the construction period. A dust barrier must be created from floor to the slab (true ceiling) and edges sealed. For short-term minor projects this may be plastic sheeting however a more permanent barrier may be required for long term projects. It may be necessary to create an ante-room if the barrier is an entrance/egress for construction workers.

All windows, doors, vents, plumbing penetrations, electrical outlets and any other sources of potential air leak must be sealed in the construction zone.

Air pressure in the construction zone must be negative compared with adjacent areas. An extract fan may be used for this purpose. Air from the construction zone will be extracted to the outside and this is the most appropriate option. If this is not possible air must be filtered through HEPA filters before being re-circulated to the hospital, such filters must be properly fitted and strictly monitored.

Dust reduction techniques must be used for cutting and boring

Debris will be removed from the construction area at the end of each working day. Debris must be removed in covered containers preferably through window openings. A chute may be necessary. Good housekeeping arrangements must be maintained including holding skips and other containers must be kept moistened

and/or covered. The construction area must be vacuumed on a daily basis or more frequently if required to maintain an environment as free from dust as possible.

A mat with a sticky surface or moist carpet must be placed inside the exit from the construction zone to trap dust. This must be vacuumed/changed daily or more frequently when visibly soiled.

Construction workers must wear protective clothing, which must be removed before leaving construction zone.

The measures implemented will depend on activity; these are outlined in Appendix 1.

b) Measures to physically protect at-risk patients

Patients who are at risk must be moved to an area away from the construction zone if the air quality cannot be guaranteed during construction. At risk patients (Groups 2-4) must wear protective masks if it is necessary to transport them through a construction area. These masks must be capable of filtering *Aspergillus* spores for example PFR 95 which give >95% efficacy of 0.3 µm particle size and be fitted in accordance with manufacturer recommendations.

All windows, doors (apart from essential access points) and vents must be sealed in areas of the hospital containing patients who are most susceptible (Groups 2-4) if the construction or demolition work is considered likely to result in *Aspergillus* contaminated air entering these areas. If the area is not served by a ventilation system, these precautionary measures may result in unacceptable environmental conditions within the area involved. Any fresh air introduced into this area must be HEPA filtered. If the area is connected to a central ventilation system, it is important that prior to construction works, the ventilation system is thoroughly checked and if it is to remain functional then it must be fitted with HEPA filters if air from the construction zone may be drawn into the system.

For very high risk patients (group 4), it is recommended that an environment that is fully HEPA filtered and at positive pressure is provided. This involves the installation of dedicated remote air handling systems, which are ducted through supply systems to the at risk area. The intake air-handling unit is fitted with a combination of coarse bag and panel filters and finally a HEPA filtered section. Typically these units will provide an air exchange rate of >12 air changes per hour within the at risk area and a pressure differential for positive pressure areas of >2.5 Pascal's (ideal pressure differential of >8Pa)

### 3.2.3 Infection Prevention & Control Measures

Communication and education are key elements to the infection prevention and control strategy.

a) Education - Healthcare workers must be educated on (see section 4.6, 4.7 and 4.9)

- The risk of invasive Aspergillosis in the categorised at-risk groups during construction work

- The infection prevention and control measures required to decrease its occurrence

Project managers, contractors, design teams and health & safety supervisors must be educated on: (see section 4.3 and 4.4)

- The preventative measures that will be implemented during construction and renovation activities
- The importance of ensuring that this information is given to the construction workers and its significance understood in order to aid compliance

Supervisors of cleaning staff must be educated on: (see section 4.3 and 4.4)

- Basic principles of *Aspergillus* spore contamination of the environment
- Cleaning measures to prevent environmental contamination
- The importance of ensuring that this information is given to operatives and its significance understood to aid compliance

At risk patients (Groups 2-4) and the relatives of these patients must be informed of:

- The risks of Aspergillosis infection - A basic information leaflet is given in Appendix 2.

#### b) Dust Containment

The objectives of dust containment are to minimise the dust generated during the work and to prevent dust infiltration into adjacent patients areas, further details are given above and in appendix 2.

#### c) Cleaning

In addition to minimise dust through measures outlined above it may be necessary to increase the existing cleaning regimens to prevent dust accumulation on surfaces, ceilings and air duct grilles. Damp dusting is recommended but where vacuum cleaners are used they must be fitted with HEPA filters and appropriately maintained to minimise dust dispersal. Filters in air filtration systems and vacuum cleaners need to be changed regularly and a record/log of these changes kept.

#### d) Traffic

Pedestrian – pedestrian traffic from the construction area must be directed away from patient areas. Where possible patients must avoid entering the hospital adjacent to major construction sites.

Supplies – Clean or sterile supplies must be transported to storage areas by a route or at a time that minimises contamination risks.

### **6.2.3 Chemoprophylaxis and the prevention of invasive Aspergillosis**

Data supporting the widespread use of antifungal prophylaxis in the prevention of invasive Aspergillosis is lacking, research is confounded by the low incidence of disease and small study groups.

Despite limited evidence antifungal chemoprophylaxis has been recommended (by some authors) for patients expected to be neutropenic (ANC, 0.1-0.5 x10<sup>9</sup>/l) for at least 2 weeks or profoundly neutropenic (ANC, <0.1 x10<sup>9</sup>/l) for more than 1 week. British Society for Antimicrobial Chemotherapy (BSAC) also recommended that neutropenic or transplant patients nursed without HEPA filtration must be given anti-fungal prophylaxis where there is a high institutional rate of invasive Aspergillosis or where building works are being undertaken.

Chemoprophylaxis may be considered in at risk groups in the presence of construction work if these patients cannot be protected by environmental measures.

### **6.3 Protective measures for at risk patients**

**These are stratified depending on the risk group (section 6.1) the patient belongs to**

*Very high risk patients (Group 4)*

These patients require maximum protection irrespective of the type/size of the building programme. All very-high risk patients must be nursed in HEPA filtered positive pressure rooms during the neutropenic period. If they are transferred to a ward, the windows must be sealed and suitable air quality provided

*High-risk patients (Group 3)*

This group will receive protection if the area of treatment is juxtaposed or near the hospital construction area or if it is otherwise likely that *Aspergillus* contaminated air may enter the area. High risk patients must be nursed in a ward with sealed windows and suitable air quality.

*Increased-risk patients (Group 2)*

These patients are often dispersed throughout the hospital and therefore some of the physical protective measures are impractical. Consideration will be given as to how this patient group is best managed.

### **6.4 Diagnosis and Surveillance**

Clinical diagnosis and surveillance

During building work it is important to maintain a high index of suspicion for the diagnosis of Aspergillosis in at risk patients. Diagnosis requires a combination of recognition of relevant clinical features followed by appropriate investigation (both radiological and microbiological). Data on possible cases of Aspergillosis must be

collected and analysed to ensure preventative strategies are effective. The Consultant Microbiologists with the patient clinician will record this data.

Environmental sampling for *Aspergillus* spp.

Air sampling for *Aspergillus* spp. is difficult and not always useful. It is therefore important to consider if it is appropriate or not, suitable indications are:

- To monitor levels of contamination prior to occupancy of special controlled environments e.g. to determine efficacy of HEPA filters in laminar flow facilities
- To identify potential sources of Nosocomial Aspergillosis

## **6.5 Planning and monitoring building work**

For major construction projects or smaller projects in close proximity to critical areas it is likely that compliance actions will need to be monitored closely by the Infection Prevention and Control Committee, usually on the advice of a consultant microbiologist.

For smaller less critical projects, compliance monitoring is usually performed by the Infection Prevention and Control Team in conjunction with ward/departmental staff.

Actions (see Appendix 1) will be identified prior to any building work and will be monitored by the Infection Prevention and Control Team in conjunction with ward staff.

If building work has been carried out without due consultation with the infection prevention and control department, then this will be brought to the attention of the Infection Prevention and Control Steering Group and/or Infection Prevention and Control Committee. The Chair of this committee will write to the Director of Estates and Facilities to ask why due process has not been followed.

## **4. TRAINING AND SUPPORT**

The policy will be available and published on the Trust policy page for all staff to access.

The policy is not part of the mandatory training process but must be consulted by staff (clinical, estates and facilities and infection control) prior to any building work being carried out to ensure that appropriate actions are taken.

## **5. PROCESS FOR MONITORING COMPLIANCE**

The process for monitoring compliance with the effectiveness of this policy is as follows:

Aspect being monitored	Monitoring Methodology	Reporting		
		Presented by	Committee	Frequency
Overseeing task and finish group monitoring for major projects	Group meetings with compliance actions drawn up.	Consultant Microbiologist	Task and Finish Group	As required
Late/delayed notification of building works	Ulysses incident report & report to IPCC	DIPC	IPCC	Quarterly
Confirmation of nosocomial Aspergillus cases	Laboratory reports Outbreak report to IPCC	DIPC	IPCC	Quarterly

Wherever the above monitoring has identified deficiencies, the following must be in place:

- Action plan
- Progress of action plan monitored by the Infection prevention and Control Committee minutes
- Risks will be considered for inclusion in the appropriate risk registers

## 6. REFERENCES:

NCUH Outbreak Policy (Procedure for the control of communicable disease within hospital)

National Guidelines for the Prevention of Nosocomial Invasive Aspergillosis during construction/renovation activities developed by a sub-committee of the scientific advisory committee of the National Disease Surveillance Centre (Ireland) published in 2018 available at

<https://www.hpsc.ie/a-z/microbiologyantimicrobialresistance/infectioncontrolandhai/guidelines/Aspergilluss%20Guidelines%202018.pdf>

## 7. ASSOCIATED DOCUMENTATION:

- Infection Prevention Standard Precautions Policy
- Hand Hygiene Policies NCUH & CPFT

## 8. DUTIES (ROLES & RESPONSIBILITIES):

### 8.1 Chief Executive Officer / Trust Board Responsibilities:

The Chief Executive and Trust Board jointly have overall responsibility for the strategic and operational management of the Trust and for the health and safety of patients, staff and visitors including the prevention of Nosocomial Aspergillosis.

## **8.2 Director of Infection Prevention and Control (AMD) Responsibilities:**

The Director of Infection Prevention and Control has the delegated executive responsibility for Aspergillosis prevention and control.

All policies have a designated Executive Director and it is their responsibility to be involved in the development and sign off of the policies, this should ensure that Trust policies meet statutory legislation and guidance where appropriate. They must ensure the policies are kept up to date by the relevant author and approved at the appropriate committee.

## **8.3 Director of Estates and Facilities (Trust)**

Must ensure the estates department staff are aware of this policy and the procedures for the prevention of Nosocomial Aspergillosis. It is the responsibility of the Estates Department to bring to the attention of the Infection Prevention and Control Team ALL proposed building work (see also section 6)

## **8.4 Head of Estates and Facilities (Interserve FM)**

Must ensure the estates department staff are aware of this policy and the procedures for the prevention of Nosocomial Aspergillosis. It is the responsibility of the Estates Department to bring to the attention of the Infection Prevention and Control Team ALL proposed building work.

## **8.5 Operational leads and Service Managers Responsibilities:**

Must ensure that procedures for the prevention of Nosocomial Aspergillosis are followed by all relevant personnel, either on a routine basis or, in the course of minor or major maintenance and construction works.

When planning major hospital construction works BUDs and/or general managers and/or Line managers must ensure the measures outlined in section 6 are followed.

## **8.6 Line Manager Responsibilities:**

Managers are responsible for ensuring adequate dissemination and implementation of policies relevant to the staff in their areas. Managers are also responsible for making sure staff understand how to access policies on the Intranet.

To ensure that staff are aware of this policy and that the infection prevention and control team are consulted about construction and renovation activities.

## **8.7 Medical and Nursing Staff Responsibilities:**

Medical and nursing staff need to be aware of the patient populations at risk, potential hazards that construction/renovation projects pose to patients and the

preventative measures required (see section 6). They must work with the IPCT to ensure that risks are appropriately managed.

### 8.8 Infection prevention and Control Committee Responsibilities:

To ensure that policies for the control and prevention of Nosocomial Aspergillosis are in place and that they are updated and approved to ensure best practice is always followed.

### 8.9 Infection Prevention Team Responsibilities

To support, in conjunction with clinical, managerial, estates and facilities staff, the implementation of appropriate infection prevention and control measures to reduce the risk of Nosocomial Aspergillosis.

## 9. ABBREVIATIONS / DEFINITION OF TERMS USED

ABBREVIATION	DEFINITION
µm	Micrometre
ANC	Absolute Neutrophil Count
AIDS	Acquired Immunodeficiency Syndrome
BSAC	British Society of Antimicrobial Chemotherapy
BUD	Business Unit Director
HEPA	High Efficiency Particulate Air
HPSC	Health Protection Surveillance Centre
IFM	Interserve Facilities Management
IPCT	Infection Prevention and Control Team
OSM	Operational Service Managers
PFR	Particulate Filter Respirator
SCIDS	Severe Combined Immunodeficiency
Spp	Species

## APPENDIX 1 - SUMMARY OF INFECTION PREVENTION AND CONTROL ACTIVITY

NB: This summary should also be checked in line with 2018 Irish guidance as per section 6 reference list.

<p><b>Class 1 – Preventative measures for minor internal containable construction activities – inspection and non-invasive activities and small scale activities that create minimal dust. These include but are not limited to, activities that require removal of ceiling tiles (1 tile per 5m<sup>2</sup>), painting, wall covering, electrical trim work, minor plumbing and other maintenance activities that do not require wall cutting or removal of ceiling tiles other than for inspection. Activities that require access to conduit spaces, cutting of walls or ceilings where dust migration can be controlled for installation or repair of minor electrical work, ventilation components, telephone wires or computer cables.</b></p>				
<p><b>Dust Control</b> Immediately replace ceiling tiles</p> <p>Minimise dust generation</p> <p>Minimise dust migration into atmosphere</p>	<p><b>Cleaning</b> Wet mop and vacuum as needed and when work complete</p> <p>Wipe horizontal and vertical work surfaces with water and detergent</p>	<p><b>Infection Control Team</b> Approval to be given</p> <p>Ensure as necessary that construction zone sealed and dust prevention adequate</p>	<p><b>Patient risk reduction</b> Move at risk patients (Gps 2-4 – section 6.1) away from area, if this is not possible an impermeable dust barrier will be erected</p> <p>Minimise patient exposure to work area</p> <p>Minimise dust and increase cleaning</p>	
<p><b>Class 2 – Preventative measures for major internal containable construction activities – any work that generates a moderate level of dust or requires demolition or removal of any fixed building components or assemblies (e.g. counter tops, cupboards or sinks). For example, sanding of walls, removal of floor covering, ceiling tiles and stud work, new wall construction, minor duct work or electrical work above ceilings, major cabling. Extensive plumbing etc. Usually requires &gt;1 shift.</b></p>				
<p><b>Dust Control</b> Erect an impermeable dust barrier</p> <p>Ensure windows and doors sealed</p> <p>Create separate entrance</p> <p>Protective clothing removed by construction workers when leaving site</p> <p>Dust barriers remain until complete</p>	<p><b>Ventilation of Area</b> Seal windows</p> <p>Maintain negative pressure with portable extract fan</p> <p>Ensure air exhausted directly to outside and away from intake vents</p> <p>Ensure ventilation system is functioning properly and is cleaned if contaminated by dust (after project complete)</p>	<p><b>Debris Removal &amp; Cleaning</b> Cover debris and keep covered during transport &amp; disposal</p> <p>Remove debris at end of working day</p> <p>An external chute may be required</p> <p>Vacuum work area with HEPA filtered vacuums at least daily as required</p>	<p><b>Patient Risk Reduction</b> Move all patients from construction area</p> <p>If possible move at risk patients (Gps 2-4) away from adjacent area.</p> <p>Minimise patient exposure to work area</p> <p>All windows, doors, air intake and exhaust vents must be sealed if work may result in “dust” entering area</p> <p>Group 4 patients may need HEPA filtered positive pressure rooms</p>	<p><b>Traffic Control</b> Designate traffic pattern for construction workers that avoids clinical areas and for all clinical and related staff that avoids construction area</p> <p>Agree appropriate method for disposal of rubble</p>
<p><b>Class 3 – All external non-containable construction activities – these include minor activities – moderate dust levels or minor excavations e.g. digging trial pits, minor foundations, trenching, landscaping and minor construction and demolition work. Major activities generate large levels of dust &amp; include soil excavation, building demolition.</b></p>				
<p><b>Dust Control</b> Use methods to minimise dust generation</p>	<p><b>Debris Removal &amp; Cleaning</b> Cover debris and keep covered</p>	<p><b>Infection Control Team</b> Approval to be given</p>	<p><b>Patient Risk Reduction</b> If possible move at risk patients</p>	<p><b>Traffic Control</b> Designate traffic pattern for construction</p>

<p>Minimise dust migration into atmosphere</p>	<p>during transport &amp; disposal</p> <p>Ensure no increase in dust within hospital, increase cleaning may be necessary</p>	<p>Ensure as necessary that construction zone dust minimised</p> <p>Ensure as necessary that cleaning within hospital is adequate</p>	<p>(Gps 2-4) away from area adjacent to construction site.</p> <p>Ensure patients do not go near construction area</p> <p>All windows, doors, air intake and exhaust vents must be sealed in areas of the hospital containing patients classified as high risk (Gp3) if construction work is considered likely to result in Aspergillus-containing air entering these areas</p> <p>Group 4 patients may need HEPA filtered positive pressure rooms</p>	<p>workers that avoids clinical areas and for all clinical and related staff that avoids construction area</p> <p>Agree appropriate method for disposal of rubble</p>
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## **APPENDIX 2 - INFORMATION LEAFLET ON ASPERGILLOSIS DURING CONSTRUCTION ACTIVITIES**

### **General Information**

The purpose of this leaflet is to inform patients, relatives, healthcare workers and those involved in activities of construction of the risks of Aspergillosis during construction work. This leaflet must be considered as introductory information only.

Aspergilli are tiny fungi that cannot be seen by the eye but commonly occur in soil, water and decaying vegetation. Many types of Aspergillus are found in nature but only a few cause human disease.

Aspergillus is not a risk to healthy adults or children but may cause significant infection in those that are immunocompromised for example patients who are undergoing high dose chemotherapy for leukaemia or cancer or who are having bone marrow, stem cell or other transplants.

Aspergillus may be released into the air during construction/renovation activities such as demolition. Aspergillus can be transported significant distances by normal conditions such as air currents and wind. Small pieces of dust or dirt in the air are the main ways that Aspergillus travels and causes infection. We are taking a number of precautions to minimise the exposure of vulnerable patients for example keeping windows closed in certain clinical areas. Please help is to protect these patients and follow infection prevention and control advice.

### **For the patient/visitor**

During building work every effort will be made to prevent the spread of Aspergillus. The medical team who is treating patients will be in close communication with the builders and the Microbiology/Infection Prevention and Control Department to make sure that the risk of spreading Aspergillus is kept to a minimum and will inform you if you need to take any special precautions.

Please contact the Infection Prevention and Control Team should this leaflet be required in another language, larger font or brail.

## DOCUMENT CONTROL

<b>Equality Impact Assessment Date</b>	18/04/2016 – no equality changes
<b>Sub-Committee &amp; Approval Date</b>	Infection Prevention and Control Committee 23/07/2019

### History of previous published versions of this document:

Trust	Version	Ratified Date	Review Date	Date Published

### Statement of changes made from previous version

Version	Date	Section & Description of change
0.1	07/06/2019	<ul style="list-style-type: none"> <li>New Joint Policy - transferred into new joint template</li> <li>Circulated to key stake holders for comment. Nil received.</li> </ul>
0.2	07/08/2019	<ul style="list-style-type: none"> <li>Formatting amendments made</li> </ul>
0.3	15/08/2019	<ul style="list-style-type: none"> <li>Added associated documents to Section 7</li> <li>Replace with Operational leads and Service Managers to section 8.5</li> <li>Removed sentence from section 8.6</li> </ul>

### List of Stakeholders who have reviewed the document

Name	Job Title	Date
Alan Shepperd	Professional Head of Estates, Medical Engineering	07/06/2019
Stephen Prince	Joint Associate Director of Estates and Facilities, Estates & Facilities Management (RNN)	07/06/2019
Steve Dougan	Head of Estates WCH	07/06/2019