

NHS Greater Glasgow and Clyde Pandemic Influenza

Infection Control Guidance: Acute Health Care Settings & In-patient Sites in Mental Health Partnerships

Document Control Summary

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Pandemic Flu Preparedness Plan:
Infection Control Aspects in the Acute Health Care Setting, and In-patient sites in
Mental Health Partnerships

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1. Introduction

In April of 2009 a new strain of influenza (H1N1 or swine flu) was identified for the first time in the UK, probably by travellers from Mexico and the USA. Since then H1N1 has spread to over 100 countries throughout the world. Pandemic Status was confirmed in June 2009.

Primary strategies for preventing pandemic influenza (flu) are the same as those for seasonal influenza:

- Vaccination
- Early detection and treatment
- Standard Infection control measures to prevent transmission during patient care

Strict adherence to basic infection control measures will help to prevent this spread within hospitals and GP practices.

The infection control guidance within this document is based on current knowledge of influenza, i.e. routes of influenza transmission, the pathogenesis of influenza and the effects of influenza control measures during past pandemics and inter-pandemic periods.

2. Influenza – the agent

Infections with a strain of influenza (type A or B) occur every year. Pandemic influenza occurs when a new influenza A subtype appears that is different to previous subtypes and can:

- Infect humans
- Spread effectively from human to human
- Causes significant clinical illness in a high proportion of those who acquire the virus

Clinical Features of H1N1

Influenza illness can include any or all of these symptoms: fever, muscle aches, headache, dry cough, diarrhoea, sore throat, runny or stuffy nose and extreme tiredness. The fever and body aches can last 3-5 days and the cough and lack of energy may last for 2 or more weeks. Most people who have influenza will have mild symptoms and recover within 7 days, however, a small number of people may develop more serious illness, e.g. people with underlying heart and respiratory conditions.

Routes of transmission

Infection principally takes place within the respiratory tract. Virus is shed as large aerosol droplets (more than 5µm diameter) during coughing or sneezing by an infected person. Once expelled, virus particles are transmitted via the droplet or contact route to a susceptible person. How infectious an individual is depends on how severe their symptoms are; people will be most infectious just after their symptoms have started.

A. Droplet transmission.

Large droplets, generated from a person with clinical disease during coughing or sneezing may land directly on the conjunctiva, or mucous membranes of the nose and mouth of a susceptible person. Large droplets are heavy and do not remain suspended in the air for long periods of time and only travel and for distances up to 1 metre.

B. Direct/Indirect Contact transmission

Direct contact transmission is when the virus is spread person to person without a contaminated intermediate object or person, e.g., symptomatic patient to a healthcare worker, e.g. a sneeze or cough directly onto the eyes, nose or mouth.

Indirect contact transmission is the transfer of an infectious agent through a contaminated intermediate object or person, e.g. from a contaminated surface, bed table, to the hands of another person who then transfers the virus to their nose, mouth or eyes. Influenza virus is known to survive well in the environment:

Up to 48 hours on hard non-porous surfaces

- 8-12 hours on cloth, tissue and paper
- 5 minutes on the hands

Once on the hands, virus is easily transferred on to the conjunctiva or mucous membranes of the nose or mouth.

C. Small-particle aerosols

Transmission may occur at short distances through inhalation of small particle aerosols which may be produced during aerosol generating procedures, e.g. during intubations.

NB –Small particle aerosols may remain in the atmosphere for up to one hour after generation. This will be less in negative pressure rooms or where air changes are frequent.

Case Definitions H1N1

Confirmed case:

Any person with laboratory confirmation of influenza A(H1N1)v

Suspected case:

Clinicians are now encouraged to diagnose influenza A(H1N1)v cases on the basis of symptoms. The clinical diagnostic criteria are:

Fever [pyrexia $\geq 38^{\circ}\text{C}$] or a history of fever, **and**

Influenza-like illness (**two or more** of the following symptoms: cough, sore throat, rhinorrhoea, limb or joint pain, headache)*, **or**

Severe and/or life-threatening illness suggestive of an infective process.

**vomiting and diarrhoea has been a feature of some of the confirmed US cases*

NB -Please check the current NHSGGC algorithm for the most up to date information regarding geographical areas within NHSGGC please click on the following link: http://www.nhsggc.org.uk/content/default.asp?page=s1309_2

3. Aerosol Generating Procedures

Healthcare staff that perform such procedures on patients with pandemic influenza, or are within 1 metre of such procedures, warrant additional precautions (see 5e personal protective equipment). It must be noted that there is no evidence that influenza transmission can occur across long distances or through prolonged suspension in air (CDC28) Staff present when an aerosol generating procedure is being carried out, should wear an FFP3 mask only if they are assisting or are within 1 metre of the patient.

Where possible, aerosol generating procedures should be avoided or alternative methods considered e.g. nebulisers replaced with inhalers. Although the preferred option would be to perform any potential aerosol generating procedures in a side room with the door closed; it is acknowledged that owing to urgency and limitation of such areas this will generally not be achievable during a pandemic. If deemed necessary only essential staff should be present.

During certain healthcare procedures, small particle aerosols may be generated which could increase the risks to healthcare workers in the immediate vicinity. These aerosol generating procedures include:

- Endotracheal intubation and related procedures, for example, manual ventilation and airway suctioning
- Cardiopulmonary resuscitation
- Diagnostic sputum induction
- Bronchoscopy
- Non Invasive Ventilation (NIV) e.g. Bilevel Positive Airway Pressure Ventilation (BiPAP), Continuous Positive Airway Pressure Ventilation (CPAP) and High Frequency Oscillatory Ventilation (HFOV)
- Procedures involving the use of high-speed devices such as power saws e.g. those used in post mortem.
- Dental procedures

In the paediatric setting the use of FFP3 respirators for staff working in close proximity to a patient who is considered to be a probable or confirmed case with an uncuffed endotracheal tube is strongly recommended.

Aerosols may remain in the atmosphere for up to one hour after generation. This will be less in negative pressure rooms or where air changes are frequent.

4. Infectivity and Communicability

Table 1 indicates periods of communicability – Flu A.

Host	Incubation period	Period of communicability
Adults	1-4 days	1 day before until 5 days or more after onset of symptoms
Children	1-4 days	Young children can shed virus several days before onset of symptoms. Infectious for 7 or more days after onset of symptoms
Severely immuno-compromised	1-4 days	May shed virus for weeks to months

The period of communicability for H1N1 is as yet unknown.

5. Limiting the spread of influenza

Infection control practices for pandemic flu are the same as for other human influenza viruses.

A. Patient Isolation/Cohorting

- A patient with possible, probable or confirmed influenza should be nursed in a single room preferably with en-suite facilities.
- When single room accommodation is no longer available, a cohort area should be identified following advice from the local Infection Control Team (or on-call microbiologist). Strict adherence to the cohort guidance must be maintained and patients placed no less than 2.7 metres (Appendix 1). Special ventilation is not required.
- To control entry, a sign should be displayed prominently at the entrance to a single room or cohort to identify the area for isolated patients.
- Entry to designated cohort areas will be controlled. All HCWs and visitors should sign a recording sheet at the entrance. This will enable follow up/contact tracing if required. The number of personnel should be limited to those necessary for patient care and support.
- The distance between beds should be more than 1 metre (standard spacing is 2.7 metres). Beds should be separated, preferably with a physical barrier, e.g. curtain. Keep the patients personal belongings to a minimum.
- Patients should be considered infectious until symptoms have resolved or after a period of seven days from symptoms occurring whichever is the longer. Patients with underlying medical conditions or patients who have gone on and developed a secondary complication as a result of infection should be considered infectious until they return to their previous health state. Patients who fall into this category must be assessed individually.
- **No clearance samples are required in most areas.**

B. Patient movement/Inter-Hospital Transfers

Influenza patients who are still infectious must not leave the single room or cohort area unless it is absolutely necessary. If movement is necessary, the patient should wear a surgical mask where appropriate. The surgical mask should be worn until the patient is returned to the isolation room/cohort area. If a patient requires transfer to another department the following procedures must be followed:

- The department must be informed in advance.
- Staff transferring or receiving the patient should wear standard PPE as appropriate. If the patient is unable to wear a mask and is expelling respiratory droplets then staff transferring the patient should wear surgical masks.
- The patient must be taken straight to and returned from the department and must not wait in a communal area.
- Patients should be placed at the end of a list to allow appropriate decontamination after any procedure.
- In some settings, e.g. radiology departments a separate room should be set aside for patients with influenza and this room should be cleaned regularly.
- If patients require oxygen, then the patient need not wear the surgical mask, however if nasal prongs are used to deliver oxygen then the patient should also wear a surgical mask over the prongs.

If patients/children are accompanied by a symptomatic relative the relative should be asked to wear a surgical mask.

Hospital transfers; patients must not be transferred from one hospital to another for routine care. However, some patients may require specialist care, e.g. renal dialysis. If a patient has to be transferred this **MUST** be discussed with the local infection control team (ICT) who will alert the ICT at the receiving hospital. ICT at the receiving hospital will alert the bed manager or on call manager. It will be the responsibility of the ICT at the referring hospital to advise ambulance staff in advance of the transfer.

C. Visitor Restrictions

- Visiting in hospital should be restricted to 1-2 visitors only in order to reduce the risk of influenza transmission from and to visitors. Close relations or a partner only should be allowed to visit.
- Children should not be allowed to visit patients in hospital. However in exceptional circumstances, e.g. when a parent is critically ill, then advice should be sought from the Infection Control Team and a risk assessment will be undertaken.
- All visitors must be free of flu-like symptoms, or have been immunised against the particular strain of influenza.
- Before entering an isolation/cohort area visitors must speak to a member of staff and be instructed on hand hygiene practice and the wearing of protective clothing as appropriate (please refer to appendix one page 13 where further guidance is

available). The use of family members and volunteers to assist in patient care during a pandemic may be necessary if staff shortages are severe. If visitors become carers they will need to be instructed on the implementation of the application of standard precautions.

- Asymptomatic parents of a child with possible/probably or confirmed flu should be allowed to visit and do not need to wear PPE. They should be encouraged to stay in the cubicle at all times and only leave when going home. They should notify the nurse-in-charge if they develop symptoms, go home and contact NHS 24
- Symptomatic parents of a child with possible/probable/confirmed flu should be encouraged not to stay. If they insist, then they should be allowed to stay overnight with their child. While in the room, parents do not need to wear PPE. Meals will be provided in the room if they chose to be resident. They must not visit any other part of the ward or hospital. Before leaving the cubicle they must wash their hands. When travelling from their child's cubicle to their home, they should wear a surgical mask. Where possible, the child should be in a cubicle with en-suite toilet facilities for the use of the parents if they are resident. If no en-suite cubicle is available (or if the child is in a cohort), the symptomatic parent must wear a surgical mask when using communal toilet facilities

D. Hand hygiene

Hand hygiene remains the single most important measure to take against the spread of influenza. Effective hand washing with plain liquid soap and running water is sufficient. Antibacterial soap is not required. Hand washing should be followed by thorough drying with disposable paper towel/ tissue.

Alcohol hand rub (AHR) can be used, but on visibly clean hands only. AHR are effective, especially where hand hygiene facilities are poor or lacking.

Ward and clinic managers should ensure that adequate hand hygiene facilities are available.

Hand hygiene should be performed:

- before and after direct contact with each patient
- before and after contact with an infected patient or their immediate surroundings
- after removal of protective clothing, including gloves and masks by staff, patients and visitors when entering and leaving a clinical area

Please refer to the NHS Greater Glasgow & Clyde Prevention and Control of Infection Policy on Hand Hygiene – please click on the link below to view this policy.

<http://library.nhsggc.org.uk/mediaAssets/Infection%20Control/Microsoft%20Word%20-%20Hand%20Hygiene%202008.doc.pdf>

E. Personal protective equipment (PPE)

PPE is worn to protect staff from body fluids to reduce the risk of transmission of influenza between patients and staff and from one patient to another. The level of PPE used will vary based on the procedures being carried out and not all items of PPE will always be required. Appropriate PPE for care of patients who is suspected or confirmed to have pandemic influenza is summarised in table 2.

Table 2

PPE	Entry to isolation room/cohort area but no patient contact	Close patient contact (< 1 metre)	Aerosol generating procedures
Hand hygiene	✓	✓	✓
Gloves	X	✓	✓
Plastic aprons	X	✓	X
Water repellent disposable gowns	X	X	✓
Surgical mask	✓	✓	X
FFP3 respirator	X	X	✓
Eye protection	X	Risk Assessment	✓

Masks

Surgical masks may be of benefit in the early stages of the pandemic. Surgical masks should be worn by health care workers for contact with patients suspected or known to have influenza. The mask provides a physical barrier which becomes ineffective once wet. As masks themselves may become a reservoir for the virus, great care should be taken during their removal and disposal.

When to remove the mask

If visiting a number of patients within a cohort area, or in rapid succession within a clinic or A&E department, it is acceptable to wear the same mask and change it at the end of the session and if it gets wet. Great care must be taken not to contaminate the hands during this time by touching the mask. Hand hygiene must be performed after removal of all PPE. All contaminated PPE must be removed before leaving a patient care area. Surgical masks or FFP3 respirators should be removed last.

Surgical masks should:

- cover both the nose and mouth
- not be allowed to dangle around the neck
- not be touched during use
- be changed when they become moist
- be worn once and discarded as clinical waste

During a pandemic when multiple patients must be visited over a short time or in rapid sequence, e.g. hospital cohort, influenza clinic, it is acceptable to wear a single surgical mask upon entry to the area and to keep it on for the duration of the activity or until the surgical mask requires replacement, e.g. it becomes moist. This does not apply to other types of PPE, e.g. gloves, aprons which must be changed between patients.

When to wear an FFP3 mask

FFP3 masks should be worn only by those staff carrying out aerosol generating procedures. To be effective, individual users must be trained to fit the mask properly to their face. The mask must seal tightly to the face to prevent air entering from the sides. A good fit is only achievable where there is good mask-to-skin contact. Beards, long moustaches and stubble may cause leaks around the mask. Staff who may be required to wear an FFP3 mask will be trained how to fit the mask to their face for maximum benefit. FFP3 masks should be replaced after each use and changed if breathing becomes difficult, or if the mask becomes damaged, or obviously contaminated, or if a proper face fit cannot be maintained.

FFP3 masks must conform to BS EN 149:2001 standard (FFP is short for “filter face piece” and the “3” denotes the filtration efficiency of the respirator. FFP3 masks can be used for up to 8 hours provided the integrity of the mask is not compromised.

Fit Testing FFP3

If a healthcare worker fails the fit-test then this should be repeated using the same mask and ensuring that the mask is fitted to the face correctly. If using the same size and model of mask, a HCW fails the fit test on two separate occasions, and then only at this point should alternative masks/hoods be considered.

Gloves

- Gloves are necessary for the routine care of patients suspected or known to have influenza.
- Gloves should be removed immediately after use, disposed of as clinical waste and hand hygiene performed.
- Please refer to the NHS Greater Glasgow & Clyde Prevention and Control of Infection Policy on Personal protective equipment – this policy can be viewed by clicking on the following link,
<http://library.nhsggc.org.uk/mediaAssets/Infection%20Control/Microsoft%20Word%20-%20PPE%202008.doc.pdf>

Aprons

- A plastic apron should be used to prevent contamination of staff uniform or clothing.
- The apron should be removed immediately after care is given, and discarded into a clinical waste bag.
- Aprons should not be reused.
- You should consider the use a gown instead of an apron if extensive soiling of clothing or contact with blood or body fluids is anticipated.

Gowns

- Single use, long sleeved, fluid repellent gowns must be worn when performing/assisting in aerosol generating procedures. If non repellent gowns are used a plastic apron should be worn underneath.

Eye protection

- Eye protection should be considered when there is a risk of contamination of the eyes with blood, body fluids, secretions or excretions.
- There should be an individual risk assessment at the time of providing care.
- Eye protection should always be worn during aerosol generating procedures.

A diagram of how to put on and remove PPE is contained in Appendix 2.

F. Decontamination of patient equipment (including toys)

- Where possible, equipment should not be shared between patients with influenza.
- Where equipment must be shared, Actichlor Plus (or a 1,000 ppm solution of hypochlorite should be used to clean equipment before being used on the next patient. Please refer to/ click on the link to view the NHS Greater Glasgow & Clyde Prevention and Control of Infection Policy on Decontamination.
<http://library.nhsggc.org.uk/mediaAssets/Infection%20Control/Microsoft%20Word%20-%202009.01.09-SOP-Cleaning%20Spec%2008-with%20PACT-Times%20New%20Roman.doc.pdf>

G. Decontamination of the environment

All environmental surfaces potentially contaminated by respiratory secretions from a patient with or suspected of influenza, should be cleaned following the NHSGGC SOP for the twice daily clean and terminal clean of isolation rooms - please see Appendix 3 & 4 or click on this link

http://www.nhsggc.org.uk/content/default.asp?page=s708_4

Accident and Emergency Departments/Short Stay Areas - If patient is in the room < 1 hour and has not undergone any aerosol generating procedures, the cubicle requires only equipment and horizontal surfaces cleaned. If the patient has undergone AGP e.g. nebulisation, or is in the room for > 1 hour, the cubicle should receive a terminal clean as per protocol. The room used for such patients should have limited amount of equipment and furnishings and as few curtains as possible.

H. Disposal of waste

No special handling procedures beyond those required to conform to Standard Infection Control Precautions are recommended for clinical and non clinical waste that may be contaminated with influenza virus. HCW must follow the NHSGGC Waste Policy.

I. Laundry

No special handling procedures beyond those required to conform to Standard Infection Control Precautions. Please refer to the NHS Greater Glasgow & Clyde Prevention and Control of Infection Policy on Laundry for contaminated linen.

Sending Laundry Home

Staff should advise relatives or carers to empty laundry directly into the washing machine avoiding sorting the laundry if at all possible. If relatives or carers have to sort or touch the laundry they should be advised to wear rubber gloves and wash these and their hands with soap and warm water afterwards. Relatives and carers should be given a copy of Health Protection Scotland – Washing Clothes at Home Leaflet.

J. Management of a Coughing & Sneezing Patient

Patients, staff and visitors should be encouraged to minimise potential influenza transmission through good hand hygiene measures:

- Cover nose and mouth with disposable single use tissues when sneezing, coughing, wiping and blowing noses.
- Dispose of used tissues in nearest waste bin, wash hands after coughing, sneezing using tissues.
- Keep hands away from eyes, mouth and nose.

Some patients may need assistance with containment of respiratory secretions, e.g. older people and children. Those who are immobile may need a container readily at hand for immediate disposal of tissues. They should also have a supply of hand wipes and tissues. Where possible in common waiting areas or during transport, coughing and sneezing patients should wear surgical masks to minimise the spread of respiratory secretions and to reduce environmental contamination.

K. Staff Education

All healthcare workers must receive basic training on standard infection control precautions. In addition, staff must be aware of the need to use additional measures during a pandemic of influenza. This will include information on influenza and how to reduce the transmission such as segregation of flu and non-flu patient, decontamination of patient equipment and use of standard PPE. All HCW who need training on how to fit and wear an FFP3 mask must be identified and receive training on how to fit a mask.

L. Accident and Emergency Departments/Triage

A number of strategies should be considered to minimise the transmission of influenza in the department, including:

- Provide separate entry and waiting areas
- Minimise the time spent in the waiting area
- Place patients with flu or flu-like symptoms straight into a single room, with a hand wash sink
- Separate patients with and without flu or flu-like symptoms by at least 1 metre
- Patients with flu or flu-like symptoms should be encouraged to use a single use tissue to wipe their nose or for covering their nose and mouth when coughing or sneezing.
- Patients should be encouraged to perform hand hygiene after coughing and sneezing
- Remove toys, magazines, soft furnishings and leaflets from the waiting areas
- Provide single use tissues, clinical waste bins and alcohol hand rub for waiting patients

M. Dying and Deceased Patients

Ministers of Religion

Ministers of religion should wear PPE as outlined in this document.

Last Offices

When performing last offices for diseased patients, healthcare workers must follow standard infection control precautions: surgical masks should be considered if there is a risk of splashes of blood or body fluids, secretions and excretions.

The body should be hygienically prepared as normal. A body bag should only be considered if there is leakage of body fluids. The body can be handled as normal; viewing and touching is permitted.

N - Staff Uniforms

HCW's should follow the local policy for the laundering of uniforms. Theatre scrubs do not negate the need for PPE.

Interim

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Gloucestershire Hospitals NHS Trust Pandemic Flu Infection Control Policy

Appendix 1 Guidance for staff when cohorting patients with influenza

A cohort is an area of a ward or department which can be segregated for isolation of a group of patients who have laboratory confirmed influenza. Later in a pandemic, as numbers increase, it may be necessary to cohort patients who have flu-like symptoms without laboratory confirmation.

Any patient suspected or confirmed to have pandemic influenza may be admitted/transferred to a cohort area. Cohort areas will be designated by a member of the local Infection Control Team.

STAFFING	<ul style="list-style-type: none"> • Designated staff should be appointed to the area where possible. • Access to the area should be restricted to essential staff only.
CRITERIA FOR ADMISSION TO COHORT AREA	<ul style="list-style-type: none"> • All patients with confirmed pandemic strain of influenza • Patients with symptoms strongly suggestive of influenza (during an outbreak screening to confirm diagnosis may not be possible)
COMMUNICATION	<ul style="list-style-type: none"> • The Pandemic Influenza Control Team should inform all staff where designated cohort areas are situated, including all other wards and department. • Any staff attending the area to carry out procedures i.e. x-ray should be made fully aware of required precautions and any personal protective clothing that should be donned must be made available • Notices should be placed on all doors leading into cohort areas, instructing visitors and staff not to enter area before speaking to nurse in charge of area. • All media communication must go through the GG&C HB Communication Office • Information for patients, staff and member of the public will be available from the Infection Control Team
HAND HYGIENE	<ul style="list-style-type: none"> • Each cohort area must have hand wash facilities within easy access • Alcohol Gel should be placed at all near patient areas • Hands must be decontaminated following contact with patient, equipment or patient environment • All staff and visitors must carry out strict hand hygiene prior to entering or leaving the cohort area • Hand decontamination must be carried out after removing personal protective clothing • For hand decontamination technique refer to NHS GGC Prevention & Control of Infection Manual or Hand Hygiene posters • Provide clear instructions for all visitors to enable correct hand decontamination to be carried out • Patients should be encourage or assisted to perform hand hygiene

PERSONAL PROTECTIVE EQUIPMENT (PPE)	<ul style="list-style-type: none"> • For patient contact closer than 1 metre, staff and visitors should wear a plastic apron, gloves and a surgical mask. • Where patient contact is anticipated staff should wear examination gloves • Masks must be changed if they become moist. It is not necessary to change the mask between patients. • Staff and visitors must decontaminate their hands after removal of PPE. • FFP3 respiratory masks should be worn by staff during any aerosol generating procedures. • All PPE used should be discarded into a clinical waste bag situated within the cohort area.
PATIENT RELATED EQUIPMENT	<ul style="list-style-type: none"> • Equipment must not be shared between cohort and non-cohort areas where possible • Only essential equipment should be taken into the cohort area • Actichlor Plus or a solution containing 1000ppm hypochlorite should be used for decontamination of reusable equipment • Further advice on the decontamination of equipment can be sought from the Infection Control Team
LINEN	<ul style="list-style-type: none"> • A linen buggy outside the entrance to the cohort area will have a white linen bag. Used linen will be placed in a red alginate bag within the cohort and then into a clear polythene bag and sealed / labelled. The bag will then be taken to the linen buggy.
WASTE	<ul style="list-style-type: none"> • A orange clinical waste bag will be available in the area for non-sharp items • Staff should remove this bag with care and decontaminate hands after disposal

Suggested Checklist for Cohort Trolley (At entrance to cohort)

- **Surgical masks**
- **Eye protection**
- **FFP3 masks**
- **Single use long-sleeved fluid repellent gown**
- **Plastic aprons, gloves and alcohol gel will all be available on wall mounted dispensers at entrance to cohort (where possible)**

This trolley should be cleaned and re-stocked daily. For nightingale wards, staff should identify strategic points for equipment stations to facilitate access and encourage use.

Appendix 2

Putting On And Removing Personal Protective Equipment

The level of PPE used will vary based on the procedures being carried out and not all items of PPE will always be required. Standard infection control precautions apply at all times. The order given here for putting on PPE is practical but the order for putting on is less critical than the order of removal:

a) Gown (or apron *[illustrated]* if not aerosol-generating procedure)

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten at back of neck and waist



b) FFP3 respirator¹ (or surgical mask if not aerosol generating procedure)

- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator



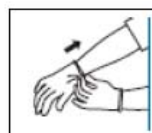
c) Goggles or face shield (aerosol-generating procedure and as appropriate after risk assessment)

- Place over face and eyes and adjust to fit



d) Disposable gloves

- Extend to cover wrist of gown if worn.



The order for removing PPE is important to reduce cross contamination so the order outlined below always applies even if not all items of PPE have been used:

a) Gloves

Assume the outside of the glove is contaminated:

- Grasp the outside of the glove with the opposite gloved hand; peel off
- Hold the removed glove in gloved hand
- Slide fingers of the ungloved hand under the remaining glove at wrist
- Peel second glove off over first glove
- Discard appropriately



b) Gown or apron

Assume the gown/apron front and sleeves are contaminated:

- Unfasten or break ties
- Pull gown/apron away from the neck and shoulders, touching the inside of gown only
- Turn the gown inside out
- Fold or roll into a bundle and discard appropriately



c) Goggles or face shield

Assume the outside of goggles or face shield is contaminated:

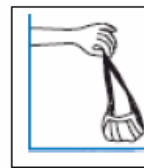
- To remove, handle by head band or ear pieces
- Discard appropriately



d) Respirator or surgical mask

Assume the front of respirator/surgical mask is contaminated:

- Untie or break bottom ties, followed by top ties or elastic and remove by handling ties only
- Discard disposable ones appropriately



Perform hand hygiene immediately after removing all PPE.

To minimise cross-contamination, the order outlined above should be applied even if not all items of PPE have been used. **Clean hands thoroughly immediately after removing all PPE.**

AIM	To minimise the risk of healthcare associated infection from the environment.
STATEMENT	<i>The terminal clean should only commence after the patient and his/her possessions have been removed from the room. The nurse in charge will notify the Domestic/Domestic Supervisor, when cleaning is required (local arrangements for notification may apply).</i>
COMMUNICATION	A nurse will notify the domestic staff when special cleaning is required.
REQUIREMENTS	<p>Equipment needed</p> <ul style="list-style-type: none"> • Disposable or launderable mop head and bucket – appropriate colour coded for use in terminal cleaning. • Dust control mop (disposable cover)/suction cleaner (hepa filter) • Small bucket or bowl • Single use cloths - colour coded as per terminal clean. • Single use scourer • Non sterile single use gloves • White single use apron • Clinical waste bag • Chlorine based detergent (1000ppm). <p>Where possible individual equipment should be used per isolation room unless there are two or more in an individual bay, and then the same isolation equipment may be used.</p> <p>All equipment must be cleaned after use including suction cleaners.</p> <p>If multiple isolation rooms are being cleaned, the solution and mop must be changed in between rooms or at intervals of 15 minutes. Cloths used in sanitary areas must be discarded immediately after use and a fresh cloth must be used for the general area.</p>
PROCEDURE	<p>Prior to entering a room/area</p> <ul style="list-style-type: none"> • The Supervisor will ensure that the cleaning team have the necessary equipment and that all domestic staff working in the area are aware of the precautions to be taken. • Report to the nurse in charge to ensure that it is convenient for cleaning to start and to receive any special instruction. • Ensure that all medical equipment, linen, sundries, have been removed from the room/area. • Prepare a fresh solution of a chlorine based detergent (1000ppm). • Collect any equipment and materials required for cleaning inside the room/area including hand towels, soap, cleaning agents, disposable cloths and dispose of as clinical waste. • Put on a disposable plastic apron and disposable vinyl gloves (check with the nurse in charge if any other protective clothing is required). <p>Procedure within isolation area</p>

Once you have entered the room/area you must not leave it until all cleaning procedures are complete. The door of the room must remain closed until the following procedure has been completed.

NB please see SOP re cleaning responsibilities

- Check room/area for any visible contamination with blood/body fluids, if present inform nursing staff who will decontaminate the area before cleaning commences.
- Gather large items of rubbish including locker bag and bin liners and place in yellow/orange clinical waste bag.
- Remove curtains, screens and shower curtain and bag as infected laundry, i.e. placed into an alginate (water soluble) bag and then into a clear plastic bag then into a laundry bag.
- Wipe all horizontal surfaces first with the solution chlorine based detergent (1000ppm). Cleaning should start at the top and finish on the lower surfaces (a bowl dedicated for the isolation room should be used). Curtain tracks should be damp dusted.

Pay particular attention to:

- lockers
 - patient call systems
 - door handles
 - bed table
 - shelves
 - high/window ledges
 - bed frame (including underneath)
 - chairs/armchairs
 - all other furniture
 - television set/remote control (local policy may apply)
 - exposed pipes
 - light switches
 - bed
 - waste bins
 - patient call system
- Clean wash hand basin, shower and toilet using chlorine based detergent (1000ppm) then dry using disposable colour coded cloth/paper. Discard into yellow/orange bag after use. Toilets may be pre-cleaned with a sanitizer.
 - Dry mop/suction clean the floor working from furthest point towards the door. The floor should then be damp mopped using dedicated equipment and a chlorine based detergent (1000ppm). Mops used must be discarded as clinical waste or placed in a bag and sent for laundering.
 - Remove apron and gloves, discard as clinical waste.
 - **WASH HANDS with soap and water.** Check all cleaning procedures are complete.
 - Remove all cleaning equipment, materials and rubbish from room/area.
 - After a terminal clean the room can be used immediately once all the

	<p>surfaces are clean and dry.</p> <ul style="list-style-type: none"> • Wearing fresh protective clothing remove waste (seal bag prior to leaving the room) and equipment to either the DSR or sluice. Dispose of waste and clean equipment with the chlorine based detergent (1000ppm), dry thoroughly. Protective clothing should then be removed and disposed of as clinical waste. • <u>WASH HANDS using liquid soap and water.</u> • Storage of equipment should be in accordance with local infection control advice. • Replenish supplies (e.g. paper towels, soap) within the room. • Replace clean bag onto locker. • Replace curtains.
AFTER CARE	<ul style="list-style-type: none"> • Storage of equipment should be in accordance with local infection control advice. • Mop heads should be laundered under supervision of domestic supervisor (see local guidance/policy). • Inform the nurse in charge that the clean has been completed.

Appendix 4 – Twice Daily Clean of an Isolation Room/Cohort Area

AIM	To minimise the risk of healthcare associated infection from the environment.
STATEMENT	<p>Patients with certain alert organisms/conditions to be nursed in isolation to prevent the spread of the infection to other patients and staff. This is known as source isolation. In some situations if more than one patient is affected, during an outbreak of vomiting and diarrhoea for example, the restrictions may apply to a whole ward or part of a ward. Some patients are nursed in protective isolation when they are especially vulnerable, in order to protect them from infection.</p> <p>It is important that rooms used for: -</p> <p>PROTECTIVE isolation is cleaned BEFORE all other areas in the ward.</p>
COMMUNICATION	A nurse will notify the domestic staff when special cleaning is required. An isolation notice will be displayed at the entrance to the room.
REQUIREMENTS	<p>The Domestic Supervisor/Team Leader will ensure that domestic staff have the necessary equipment and that staff working in the area are aware of the procedure to be taken.</p> <ul style="list-style-type: none"> • Disposable or launderable mop head and bucket – appropriate colour coded for use in terminal cleaning. • Dust control mop (disposable cover)/suction cleaner (hepa filter) • Small bucket or bowl • Single use cloths - colour coded as per terminal clean • Single use sourer • Non sterile single use gloves • White single use apron • Clinical waste bag • Chlorine based detergent (1000ppm) <p>Where possible it is intended that individual equipment should be used per isolation room unless there are two or more in an individual bay, and then the same isolation equipment may be used. Personal Protective Equipment (gloves, aprons) must be changed in between each room/area.</p> <p>All equipment must be cleaned after use including suction cleaners.</p> <p>If multiple isolation rooms are being cleaned, the solution must be changed in between rooms or at intervals of 15 minutes. Cloths used in sanitary areas must be discarded immediately after use and a fresh cloth must be used for the general area.</p>
PROCEDURE	<p>Nursing staff are responsible for cleaning any medical equipment Within the room as well as mattresses and patient call buzzer.</p> <p>NB please see SOP re cleaning responsibilities Prior to entering a room/area</p>

Report to the nurse in charge to ensure that it is convenient for cleaning to start and to receive any special instruction.

Domestic staff cleaning isolation rooms/areas must be kept to a minimum.

- Collect any equipment and materials required for cleaning inside the room/area as stated above.
- Wash hands with liquid soap and water.
- Put on a disposable plastic apron and disposable vinyl gloves (check with the nurse in charge if any other protective clothing is required).
- Make up solution of chlorine based detergent (1000ppm).

Procedure within isolation area

Once you have entered the room/area you should not leave it until all cleaning procedures are complete.

- Explain to patient what you are going to do in the room.
- Check room/area if there are any visible contamination with blood/body fluids inform nursing staff to decontaminate the area before commencing cleaning.
- Gather large items of rubbish including locker bag and bin liners and place in a clinical waste bag.
- Clinical waste bags should be sealed in accordance with the NHSGGC waste policy.
- Damp dust all horizontal surfaces with a chlorine based detergent (1000ppm) first. Pay particular attention to:

NB please see SOP re cleaning responsibilities

- shelves
- window ledges
- bed frame (including underneath of the bed)
- chair/armchairs
- all other furniture
- television
- patient call systems
- exposed pipes
- waste holders
- door handles
- any other fixtures handled frequently by patient or staff
- Replace clean bag onto locker if required.
- If there is a hand wash basin or en-suite facilities ensure hand wash basin, bath, shower, tiles, all fixtures and fittings, toilet seat and toilet bowl are thoroughly cleaned using a chlorine based detergent (1000ppm). Always clean the toilet last and dispose of cloth immediately into clinical waste bag. Toilets may be pre-cleaned using a sanitizer.

	<ul style="list-style-type: none"> • Dry mop/suction the floor working from furthest point towards the door. The floor should then be damp mopped using dedicated equipment and a solution of chlorine based detergent (1,000ppm available chlorine) and hot water. Mops used in isolation rooms should be disposed of or laundered after use. • No buffing should take place in the room. • Still wearing protective clothing remove waste (seal bag prior to leaving the room) and equipment to either the DSR or sluice. Dispose of waste. Remove mop head from pole and clean equipment with a solution chlorine based detergent (1000ppm) dry thoroughly. Protective clothing should then be removed and disposed of as clinical waste. • <u>WASH HANDS</u> • Replenish supplies (e.g. paper towels, soap) within the isolation room. <p>NB Crockery and cutlery Crockery and cutlery used by patients in isolation can be returned with the meal trolley for processing in a dishwasher or double sink and bactericidal detergent.</p> <p>Nursing staff are responsible for cleaning any medical equipment Within the room, e.g. mattresses and patient call buzzer.</p>
AFTER CARE	<ul style="list-style-type: none"> • Storage of equipment should be in accordance with local infection control advice. • Mop heads should be laundered under supervision of domestic supervisor (see local guidance/policy).

Appendix 5 – Algorithm – Mask Fit Testing

