

# Pandemic Influenza Infection Control Measures



Pandemics arise when a new virus emerges which is capable of spreading in the worldwide population. Unlike ordinary seasonal influenza that occurs every winter in the UK, pandemic flu can occur at any time of the year.

**This is a live document, as such in the event of any influenza outbreak the document will be reviewed and reissued to contain the most up to date information**

## Document Control Sheet

Name of document:	Pandemic Influenza Infection Control Measures
Version:	6
Status:	Approved
Owner:	Infection Prevention and Control Team
File location / Filename:	
Date of this version:	September 2020
Produced by:	Infection Prevention and Control Team
Synopsis and outcomes of consultation undertaken:	Joint Infection Control Committee. Reference to key guidance documents. IPACC
Synopsis and outcomes of Equality and Diversity Impact Assessment:	No specific issues. National EIA give more detailed on measures to reduce HCAs
Approved by (Committee):	Joint Infection Control Committee IPACC
Date ratified:	29/11/2016   04/09/2018
Copyholders:	Infection Prevention and Control team
Next review due:	September 2022
Enquiries to:	<a href="mailto:ecch.infectionprevention@nhs.net">ecch.infectionprevention@nhs.net</a>

## Revision History

Revision Date	Summary of changes	Author(s)	Version Number
September 2009	Updated references	IPCT	2
January 2015		IPCT	4
September 2018		IPCT	6
September 2020	Updated references	IPCT	7

## Approvals

This document requires the following approvals either individual(s), group(s) or board.

Name	Title	Date of Issue	Version Number
JICC		20/09/2009	2
IPACC		18/02/2013	3
IPACC	Virtual approval	23/01/2015	4
IPACC		29/11/2016	5
IPACC		04/09/2018	6

## EQUALITY AND DIVERSITY IMPACT ASSESSMENT

Impact Assessments must be conducted for:

- All ECCH policies, procedures, protocols and guidelines (clinical and non-clinical)
- Service developments
- Estates and facilities developments

<b>Name of Policy / Procedure / Service</b>	<b>Pandemic Influenza Infection Control Measures</b>
<b>Manager Leading the Assessment</b>	<b>Teresa Lewis</b>
<b>Date of Assessment</b>	<b>21/11/2014</b>

### STAGE ONE – INITIAL ASSESSMENT

<p><b>Q1. Is this a new or existing policy / procedure / service?</b>  <input checked="" type="checkbox"/> Existing</p>
<p><b>Q2. Who is the policy / procedure / service aimed at?</b></p> <p><input type="checkbox"/> Patients  <input checked="" type="checkbox"/> Staff  <input type="checkbox"/> Visitors</p>
<p><b>Q3. Could the policy / procedure / service affect different groups (age, disability, gender, race, ethnic origin, religion or belief, sexual orientation) adversely?</b>  <b>Yes</b> Sufficient national protocols that this policy takes into consideration can be applied if relevant  <b>No</b>  <b>If the answer to this question is NO please sign the form as the assessment is complete, if YES, proceed to Stage Two.</b></p>

### **Analysis and Decision-Making**

**Using all of the information recorded above,** please show below those groups for whom an adverse impact has been identified.

#### **Adverse Impact Identified?**

Age	No
Disability	No
Gender	No
Race/Ethnic Origin	No
Religion/Belief	No
Sexual Orientation	No

- Can this adverse impact be justified? NA
- Can the policy/procedure be changed to remove the adverse impact? NA

If your assessment is likely to have an adverse impact, is there an alternative way of achieving the organisation's aim, objective or outcome
---

What changes, if any, need to be made in order to minimise unjustifiable adverse impact?
--

## CONTENTS:

	<b>Page</b>
1. Introduction	4
2. Staff deployment and Occupational health Issues	4
3. Infection control precautions	4
3.1. Hand hygiene	4/5
3.2. Personal Protective Equipment (PPE)	5/6
3.2.1 Surgical masks FFP2	6
3.2.2 Surgical masks FFP3	6
3.2.3 Aerosol Generating Procedures	6
3.2.4 Gloves	6
3.2.5 Aprons	7
3.2.6 Gowns	7
3.2.7 Putting on and removing PPE	7/8
3.2.8 PPE table 1	8
4. Applying droplet precautions in an influenza pandemic - management of the coughing and sneezing patient.	8/9
5. Environmental Hygiene and Safety	9
5.1 Waste	9
5.2 Linen/Laundry	9
5.3 Staff Uniforms and Clothing	9
5.4 Crockery/Utensils	9
5.5 Equipment	9
5.6 Housekeeping Guidance	9/10
6. Advice for Specific Areas	10/11
7. Education and Training	11
8. Author	11
9. References	11/12

## 1. Introduction

During a pandemic healthcare workers can be exposed to people with influenza both in their normal daily lives (outside work) and in healthcare settings. Limiting the transmission of influenza in the healthcare setting requires:

- Timely recognition of influenza cases
- Instructing staff members with respiratory symptoms to stay at home and not come in to work
- Segregating staff into those who are dealing with influenza patients and those who are not
- Consistently and correctly implementing appropriate infection control precautions to limit transmission (standard infection control principles and droplet precautions)
- Using PPE appropriately, according to risk of exposure to the virus
- Maintaining separation in space and/or time between influenza and non-influenza patients
- Restricting access of ill visitors to the facility and posting pertinent signage in clear and unambiguous language
- Environmental cleaning and disinfection
- Educating staff, patients and visitors about the transmission and prevention of influenza

These guidelines support Standard Infection Control Principles, which aim to safeguard all individuals against the possible risk of infection. In addition, the following principles should be considered:

## 2. Staff deployment and Occupational Health issues

- All non-essential work will be cancelled during the Pandemic period in order to divert resources to essential work
- Prompt recognition of cases of influenza among healthcare workers is essential to limit the spread of the pandemic.
- Healthcare workers with influenza should not come to work.
- Healthcare workers at high risk of complications from influenza should not provide direct patient care. (see 2.1)
- Where possible, healthcare workers who are assigned to care for patients with pandemic influenza should not be assigned to care for non influenza patients
- Bank and agency staff should follow the same deployment advice as permanent staff.
- Occupational health departments or providers should lead on the implementation of systems to monitor staff illness and absence.
- Occupational health departments or providers should facilitate staff access to antiviral treatment where necessary and implement vaccination of the healthcare workforce when required.
- As part of their employer's duty of care, occupational health departments or providers have a role to play in ensuring that fit testing programmes are in place for those staff who may need to wear FFP3 respirators.

### 2.1 Workers at risk of complications from pandemic influenza

Healthcare workers who are at high risk of complications of influenza (e.g. pregnant women and immunocompromised workers) should be considered for alternate work assignments, away from the direct care of patients, for the duration of the pandemic or until they have been vaccinated if it is clinically appropriate for them to be vaccinated. At the very least they should not provide care to patients who are known to have influenza, and neither should they enter parts of the facility segregated for the treatment of patients with influenza.

## 3. Infection control precautions

Standard infection control principles and droplet precautions are crucial to reducing the spread of influenza. This is achieved through:

- Stringent hand hygiene
- Use of Personal Protective Equipment (PPE)
- Containment of respiratory secretions
- Good environmental hygiene

### 3.1 Hand hygiene

Thorough hand washing is undoubtedly one of the simplest and most effective ways of preventing the person-to-person transmission of infective agents in clinical practice. An intact skin is an effective barrier to micro-

organisms entering the body. Thus all cuts, abrasions and other skin lesions on the hands (and other exposed areas of skin) of health care workers should be covered with an occlusive waterproof dressing.

Good practice in hand washing consists of the prior removal of jewellery, the use of running water, a liquid soap and the thorough drying of skin with disposable paper towels. These should then be discarded into the nearest foot operated waste bin.

Hands should always be washed:

- Before starting and at the end of, each work period.
- Before and after each 'hands on' patient contact.
- Before and after carrying out each aseptic procedure.
- After any contact with body fluids or secretions.
- After handling soiled or contaminated equipment or linen.
- Before and after administering drugs.
- Whenever skin is visibly soiled.
- After removal of gloves.
- After using the lavatory.
- Before eating, drinking or handling food.

Regular use of an emollient hand cream may help to keep skin intact and healthy.

All patients and visitors entering and leaving patient care areas should also routinely perform hand hygiene. In situations where soap and water are not available, hand wipes may be used on visibly soiled hands. Alternatively, alcohol gel may be used on socially clean hands, ensuring all surfaces are covered. Alcohol gel should be available at the point of use including portable units for home visits where facilities may be limited.

### **3.2 Personal Protective Equipment (PPE) (see table 1)**

In the event of an Influenza Pandemic demands for stocks of PPE will be high and it is recommended that all agencies assess their likely requirements in advance and order and store these appropriately. Storage should be lockable with a mechanism for health care workers to access supplies in the event of a pandemic.

For planning purposes the following advice is a practical approach:

- Assess supplies required during normal activity and multiply this by a factor of three.
- When ordering disposable masks use gloves/apron order numbers as a proxy measure.

#### **3.2.1 Fluid repellent surgical masks.**

Should be worn by healthcare workers for any close contact with patients (i.e. within one metre). The mask will provide a physical barrier and minimise contamination of the nose and mouth by droplets.

Masks should:

- cover both the nose and the mouth
- not be allowed to dangle around the neck after or between each use
- not be touched once put on
- disposable masks must be changed when they become moist and worn once only before being discarded in an appropriate receptacle as clinical waste – hand hygiene must be performed after disposal is complete.

When influenza patients are cohorted in one area and several patients must be visited over a short time or in rapid sequence (e.g. in cohorted areas of a hospital or nursing home, an 'influenza clinic' or a GP surgery session for influenza patients), it may be more practical for healthcare workers 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. This also minimises hand-to-face contact and reminds healthcare workers that they are working in a high-risk area. However, other PPE (e.g. gloves and apron) must be changed between patients and hand hygiene performed.

Depending on ward layout, it is likely that some locations within the parts of the facility segregated for influenza patients will not be designated part of a cohorted area, as there is no close contact with patients in these areas. Surgical masks will not therefore be required in such areas. Examples might include offices; rooms used for staff breaks and remote nursing or ward administration stations.

Although it may be more practical to wear a surgical mask at all times in a cohorted area, if surgical mask supplies become limited during a pandemic, surgical masks should be prioritised for use when healthcare workers are in close contact (within one metre) with a symptomatic influenza patient.

All contaminated PPE must be removed before leaving a patient care area. Surgical masks must be removed last, and removal must be followed by thorough hand hygiene. A buddy observer system is best practice.

### **3.2.2 FFP3 masks.**

Provide the highest possible protection factor.

#### **Fit testing is available via ECCH IPCT**

If an FFP3 mask is not immediately available, the next highest category of mask available should be worn (i.e. FFP2).

Fitting the mask correctly is critically important for it to provide proper protection. Every user should be fit tested and trained in the use of the mask. In addition to the initial fit test carried out by a trained fitter, **a fit check must be carried out each time an FFP3 mask is worn**. The mask must seal tightly to the face, or air will enter from the sides. A good fit can be achieved only if the area where the respirator seals against the skin is clean shaven. Beards, long moustaches, and stubble may cause leaks around the respirator.

As part of their employer's duty of care, occupational health departments or providers have a role to play in ensuring that fit testing programmes are in place for staff who may need to wear FFP3 mask. These should be organised well in advance of any influenza pandemic as part of the initial planning.

Suppliers of FFP3 masks may sometimes offer fit testing or training of others to fit test. The task of fit testing should not be underestimated, as not all makes of respirator fit all faces, so a range of models may be required. The rolling out of a fit testing programme across any organisation will take a significant amount of time – likely to be months rather than weeks for an average-sized hospital.

Disposable FFP3 masks should be replaced after each use and changed if breathing becomes difficult, if it becomes damaged, distorted or obviously contaminated by respiratory secretions or other body fluids, or if a proper fit to the face cannot be maintained. Masks should be disposed of as clinical waste according to the local infection control policy.

Re-usable FFP3 masks are available and are a cost effective alternative to disposable.

These must be decontaminated between uses in accordance with the manufacturer's recommendations and stored correctly.

### **3.2.3 Aerosol generating procedures**

Include intubations, and related procedures, e.g. manual ventilation and suctioning, cardiopulmonary resuscitation, bronchoscopy, surgery and post mortem, should be performed in a side room with the door closed or closed single patient area with minimal staff present.

**FFP3 mask, eye protection, fluid resistant gown or long sleeved apron and gloves are required.**

### **3.2.4 Gloves**

A selection of sterile/non sterile *single-use* nitrile gloves must be available. A range of sizes to fit staff properly should be provided. It is recommended that low protein 'powder free' nitrile gloves are used.

Gloves are not required for the routine care of patients with pandemic influenza, but standard infection control principles require that gloves be worn for:

- Invasive procedures
- Contact with sterile sites, non-intact skin and mucous membranes
- All activities that carry a risk of exposure to blood, body fluids, secretions (including respiratory secretions) and excretions
- Handling sharp or contaminated instruments.

If glove supplies become limited during a pandemic, priorities for glove use may need to be established. In such a circumstance, gloves should be prioritised for situations involving contact with blood and bloody fluids, invasive procedures and contact with sterile sites.

Staff must change gloves between patients and between different tasks involving a single patient. Gloves should be removed immediately after use, disposed of as clinical waste, and hand hygiene performed. No attempt should be made to wash or disinfect gloves for subsequent reuse.

### **3.2.5 Aprons**

Disposable plastic aprons should be worn whenever there is a risk of personal clothes or a uniform coming into contact with a patient's blood, body fluids, secretions (including respiratory secretions) or excretions or during activities that involve close contact with the patient (e.g. examining the patient).

Plastic aprons should be worn as single-use items for one procedure or episode of patient care and then discarded and disposed of as clinical waste. In cohorted areas, aprons must be changed between patients.

### **3.2.6 Gowns**

Gowns are not required for the routine care of patients with influenza. However, healthcare workers should wear gowns if they anticipate extensive soiling of their personal clothing or uniform with respiratory secretions, or if there is risk of extensive splashing of blood, body fluids, secretions or excretions onto their skin.

Aerosol-generating procedures such as intubation and activities that involve holding the patient close (such as in paediatric settings) are examples of when a gown may be needed.

Fluid repellent gowns are preferable, but if non-fluid repellent gowns are used a plastic apron should be worn beneath.

Gowns should fully cover the area to be protected, be worn only once and then placed in a clinical waste or laundry receptacle, as appropriate.

Hand hygiene should be performed immediately after removal of the gown.

### **3.2.7 Eye Protection**

Eye protection should be considered when there is a risk of contamination of the eyes by splashes and droplets, e.g. by blood, body fluids, secretions or excretions. Individual risk assessments should be carried out at the time of providing care to patients to identify those at risk and decide on reasonable precautions to reduce the risk.

One potential hazard to healthcare workers is inoculation of their conjunctiva from splashes occurring during procedures involving influenza patients or from their coughs and sneezes. Reasonable precautions might include keeping the number of personnel to a minimum, i.e. only those essential to carrying out the care, and requiring that those who are in close contact with the patient protect their eyes.

**Eye protection must always be worn by all staff present during aerosol-generating procedures.**

Eye protection can be achieved by using:

- A surgical mask with integrated visor
- A full-face visor
- Polycarbonate safety spectacles or equivalent.

#### **Ordinary spectacles do not provide adequate protection**

Disposable single-use eye protection is recommended. Non-disposable eye protection (e.g. polycarbonate safety spectacles issued to staff as personal equipment on a long-term basis) poses a potential infection risk. It is important that any such items are decontaminated after each use, by using agents recommended by the manufacturer.

### **3.2.8 Putting on and removing PPE**

#### **Putting on order:**

1. Apron/gown
2. Surgical mask or respirator
3. Eye Protection
4. Gloves

PPE must be removed in an order that minimizes the risk of cross contamination.

#### **Order of removal:**

1. Gloves
2. Apron/gown
3. Eye Protection



4. Surgical mask or respirator

Hands must be decontaminated immediately after removing all PPE

3.2.9 Table 1 PPE Checklist for care of in patients with Pandemic Influenza

	ENTRY TO COHORTED AREA BUT NO PATIENT CONTACT	CLOSE PATIENT CONTACT (Within one metre)	AEROSOL GENERATING PROCEDURES <sup>a</sup>
Hand hygiene	√	√	√
Gloves	X <sup>b</sup>	√ <sup>c</sup>	√
Plastic apron	X <sup>b</sup>	√	X
Fluid repellent Gown	X	X <sup>d,e</sup>	√ <sup>e</sup>
Surgical mask	√ <sup>f</sup>	√	X
FFP 3 mask	X	X	√
Eye protection	X	Risk assessment	√

a. Wherever possible, aerosol-generating procedures should be performed in side rooms with the doors closed or other closed single-patient areas with minimal staff present

b. Gloves and aprons must be worn during environmental cleaning procedures

c. Gloves must be worn in accordance with standard infection control principles. If glove supplies become limited or pressurised, this recommendation may need to be relaxed. Glove use should be prioritised for contact with blood and body fluids, invasive procedures and contact with sterile sites.

d. Consider gown in place of apron if extensive soiling of clothing or contact of skin with blood and other body fluids is anticipated (e.g. during intubation or caring for babies).

e. If non-fluid repellent gowns are used a plastic apron should be worn underneath.

f. Surgical masks are recommended for use at all times in cohorted areas. If surgical mask supplies become limited or pressurised, then use in cohorted areas should be limited to close contact with a symptomatic patient (within one metre).

#### 4. Applying droplet precautions in an influenza pandemic

In addition to the standard infection control principles, droplet precautions should be used if a patient is known or suspected to be infected with influenza and is at risk of transmitting droplets while coughing, sneezing or talking and during some procedures.

##### 4.1 Management of the coughing and sneezing patient

- Encourage the patient to cover nose and mouth with disposable single-use tissues
- Dispose of used tissues in nearest waste bin
- Assist patients with containment of secretions where needed e.g. children, immobile patients
- Wash hands after contact with respiratory secretions and contaminated objects
- Keep hands away from the mucous membranes of the eyes and nose and mouth
- Where possible symptomatic patients to wear surgical masks in common waiting areas or during transport
- Adhere to standard infection control precautions at all times

##### 4.2 Placement of patients within an inpatient facility

- Ideally patients with influenza should be placed in **single rooms** with doors closed, but during a pandemic this will not be possible. Therefore patients should be 'cohorted' (grouped together with other patients who have influenza and no other infection) in a segregated area.
- Special ventilation is not necessary.

## **5. Environmental hygiene and safety**

### **5.1 Waste**

- No special precautions beyond Standard Infection Control Principles are required for infectious and household waste.
- All waste bags should be tied before removal from patient areas and infectious bags labelled with source.
- Gloves and aprons should be worn when handling waste and hand hygiene performed following removal.
- Waste bins should be suitably placed for disposal of tissues e.g. waiting area.

### **5.2 Linen/ laundry**

- As per Standard Infection Prevention and Control Principles.
- Linen bags should be tied before removal from patient areas in clinical healthcare premises.
- In all areas, gloves and aprons should be worn when handling contaminated linen and hand hygiene performed following removal.

### **5.3 Staff uniforms and clothing**

- Correct use of personal protective equipment (PPE) will protect uniforms and clothing in most circumstances.
- During the Pandemic period, health care workers must avoid travelling in uniform where possible and change upon arrival at work where changing facilities are available.
- Where a laundry service is not provided, clothing should be transported home in a tied plastic bag. Launder separately in a washing machine at the maximum temperature the fabric can tolerate, then iron or tumble-dry.
- Theatre greens may be considered during the Pandemic period for close patient contact.

### **5.4 Crockery/ utensils (in-patient areas)**

- A dishwasher should be used with a hot rinse.
- Disposable plates and cutlery are not necessary.

### **5.5 Equipment (e.g. stethoscopes, thermometers etc.).**

- Equipment should be patient dedicated and disposables used wherever practicably possible.
- All reusable equipment and devices must be appropriately decontaminated between each patient.
- During the Pandemic period, soft furnishings, books and magazines must be removed from all patient areas.
- Fans and other equipment that may disperse dust must be avoided.

### **5.6 Housekeeping Guidance for Pandemic Influenza**

- Enhanced cleaning will be necessary during the Pandemic period. Housekeeping/cleaning staff must be trained in how to wear PPE and precautions to take when cleaning influenza areas
- Non-influenza areas must be cleaned first, working from clean to dirty areas
- Avoid touching the eyes, nose and mouth
- If working in immediate area with influenza patients wear disposable gloves, apron and a surgical mask
- When wearing a surgical mask ensure it covers both the nose and mouth, does not dangle around the neck, is not touched once put on and is changed when moist
- Before leaving influenza area, dispose PPE into infectious waste bin, removing masks last (see 3.2.8), and seal bag ready for disposal. Wash hands.
- If working in areas where influenza patients have been (but are no longer there) wear disposable gloves and aprons.
- Before leaving influenza area remove gloves and aprons and dispose into infectious waste bin, seal bag ready for disposal. Wash hands.
- Use freshly prepared neutral detergent and hot water for cleaning.
- Damp dust rather than dry dusting or sweeping

- Do not use sprays, as these create aerosols.
- Mops - mop heads must be laundered following use and stored inverted and dry. Alternatively, disposable mop heads can be used and changed after cleaning an influenza area
- Use separate colour-coded mops and buckets for influenza and non influenza areas
- Use separate cleaning cloths and equipment in influenza areas. Dispose of cloths after use and leave equipment clean and dry.
- As a minimum clinical and waiting areas should be cleaned daily and post influenza session
- Frequently touched surfaces such as door handles should be cleaned at least twice daily where possible.
- Replenish sanitizing gel and soap dispensers
- Where changing facilities are available, wear different clothes at work from home. Where able, avoid travelling in work clothes and launder daily.

## **6.0 Advice for Specific areas**

### **6.1 Care Homes/Hospices/other community inpatient settings**

- Beds should be separated by a physical barrier i.e. curtains or screens and be at least one metre apart.
- Bed curtains should be changed on patient discharge, so additional curtains may need to be purchased or disposable curtains used during the Pandemic period.
- A single room should be designated for potential aerosol generating procedures with minimal individuals present if performed.

### **6.2 Home visiting**

- Home visits to non-influenza patients should continue as long as possible, although non-essential routine work may be cancelled.
- Staff should be designated to visit either influenza or non-influenza patients where possible.
- Ensure liquid soap, alcohol gel, PPE and other necessary equipment is carried in cars.
- All protective clothing should be removed prior to leaving the home followed by hand hygiene.

### **6.3 Primary Care**

The BMA published comprehensive Pandemic Flu Interim Guidance in May 2006 detailing all aspects of planning and operational planning. (see references)

#### **6.3.6 District nursing teams**

Team leaders may need to consider flexible and new approaches such as 'cross-working'. For example, district nursing teams might consider sharing staff, or a designated district nurse could visit several patients in one care home.

District nurses should be designated to care for either influenza or non-influenza patients whenever possible. All non-influenza visits and appointments should be continued as long as possible, but it may be necessary to cancel routine appointments and clinics.

#### **6.3.7 Health visitors**

Close liaison among all members of the staff is essential. Health visitors may be asked to work outside their normal duties, and managers should ensure that training is provided to facilitate this need.

Home visits to patients without influenza should continue for as long as possible. However, it may be necessary to cancel routine appointments and baby clinics.

Health visitors should not routinely visit families affected by influenza. However, they must ensure that alternative arrangements (e.g. telephone liaison) are in place to maintain contact. Health visitors performing non-deferrable essential visits (e.g. child protection) to households with influenza should follow the infection control precautions detailed in this document.

#### **6.3.8. Allied health professionals (AHPs)**

AHPs may be requested to work outside their normal duties, and managers should ensure that training is provided to facilitate this need.

It may be necessary to cancel non-essential clinics and appointments. AHPs performing non-deferrable essential visits to households with influenza should follow the infection control precautions detailed in this document.

### **6.3.9 Dental practices**

Patient appointments

It may be prudent to cancel routine dental appointments during the pandemic period.

As a minimum, dental practices should put in place active screening of all patients for symptoms of influenza before they enter the clinical area.

Patients with symptoms of influenza should not be seen at all, unless a dental emergency is suspected.

Where possible, patients with influenza symptoms but who need to be seen because of a dental emergency should be segregated to a separate waiting room. If this is not possible they should be asked to wear surgical masks whilst in the waiting area to assist in the containment of respiratory secretions and to reduce environmental contamination.

Signage and posters should be displayed prominently to raise awareness of basic infection control measures such as hand hygiene and respiratory etiquette.

Tissues should be made available to patients and the location of hand hygiene facilities indicated.

A lined bin (preferably foot operated) should be located in the waiting area.

### **Performance of procedures on patients with influenza**

Dental professionals should avoid aerosol-generating procedures on symptomatic patients as far as possible and must wear appropriate PPE where that is not possible (see Table 1). Many dental procedures have the potential to generate aerosols, and risk assessments will therefore be necessary.

Emergency patients should be treated at the end of a surgery session when all other patients have left, or one clinical room could be dedicated for influenza patients throughout each session.

Staff in attendance should be kept to a minimum and should all wear PPE appropriate for an aerosol-generating procedure (Table 1).

Local plans should ensure that emergency care remains available throughout a pandemic, but dental practitioners may find normal demand reduced because of limits on the procedures they are able to carry out on patients with respiratory symptoms and because patients themselves will defer treatment or face travel difficulties.

Opportunities to use the assessment and treatment skills of dental practitioners or other health professionals to support the wider delivery of healthcare in a pandemic should be explored in local planning.

### **Infection control and environmental cleaning procedures**

Dental instruments used on patients with influenza should be decontaminated as normal.

Environmental cleaning as per GP practices

#### **6.3.10 Social care staff**

Social care staff visiting patients at home should follow the home visiting guidance in section 6.2 and the PPE risk assessment in section 3.2.9

#### **6.3.11 Visitors**

The only visitors to healthcare centres, GP surgeries and nursing and residential care settings should be patients and a guardian or care giver where essential.

#### **6.3.11 Antiviral/ Flu distribution centres**

Temporary care settings may be set up for this purpose. Access to hand washing facilities must be available with supplies of PPE, hand hygiene products and cleaning materials secured prior to accepting patients (see checklist of basic requirements in appendix 1)

## **7. Education and Training**

Healthcare workers and others working within Pandemic Influenza areas must receive training on correct infection control procedures. This will be provided by Senior Infection Control Practitioners, Public Health England or members of the Emergency Planning Team. In addition, local risk assessments to review the potential for aerosol-generating procedures should be undertaken by clinical managers.

Occupational Health has a role to play in ensuring that 'Fit testing' programmes are in place for those staff that may need to wear FFP3 masks. Records of all training should be kept. Patients, relatives and visitors will also need to receive education that is understandable and applicable to their situation. This will be largely provided via the DOH through the media but will need to be reinforced locally.

## **8. Author**

Infection Prevention and Control Team

## **9. References**

- Department of Health/ Health Protection Agency [DOH/ HPA] 2007 Pandemic Flu: A summary of

- guidance for Infection Control in healthcare settings.
- Royal College of General Practitioners/ British Medical Association [BMA] 2006 Pandemic Flu: Interim Guidance Infection Control for general Medical Practices
- DH 2006 HTM 07-01: Safe Management of Healthcare Waste
- Health and Safety Executive (HSE) 2019 INDG479(rev1) Guidance on respiratory protective equipment (RPE) fit testing. Available at <https://www.hse.gov.uk/pubns/indg479.htm>
- DH Pandemic Influenza Preparedness Team. UK Influenza Preparedness Strategy 2011. Department of Health, 2011. Available at:  
[http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/documents/digitalasset/dh\\_131040.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_131040.pdf)
- DH/HIP/PIP. Health and Social Care Influenza Pandemic preparedness and Response. Department of Health, 2012. Available at:  
[http://www.dh.gov.uk/prod\\_consum\\_dh/groups/dh\\_digitalassets/@dh/@en/documents/digitalasset/dh\\_133656.pdf](http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_133656.pdf)
- DH 2009 Pandemic H1N1influenza. A summery guidance for infection control in healthcare settings. Accessed at  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/357401/Infection\\_control\\_in\\_healthcare\\_settings.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/357401/Infection_control_in_healthcare_settings.pdf)
- Public Health England. (2013) Pandemic flu: public health response. Available at  
<https://www.gov.uk/government/collections/pandemic-flu-public-health-response>
- Public Health England (2020) Guide to donning and doffing standard personal protective equipment (PP) for health and social care settings accessed at  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/877658/Quick\\_guide\\_to\\_donning\\_doffing\\_standard\\_PPE\\_health\\_and\\_social\\_care\\_poster\\_.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877658/Quick_guide_to_donning_doffing_standard_PPE_health_and_social_care_poster_.pdf)

### Checklist of equipment

1. Hand wash basin	
2. Sanitizing gel/ rub	
3. Liquid soap	
4. Paper hand towels	
5. Paper couch roll	
6. Large disposable tissues	
7. Foot-operated infectious waste bins	
8. Foot-operated household waste bins	
9. Waste bags	
10. Sharps boxes	
11. Neutral detergent	
12. Detergent wipes	
13. Alcohol wipes	
14. Available chlorine tablets e.g. 'Chlor-clean', 'Presept', 'Acticlor'	
15. Mops with disposable or removable mop heads	
16. Buckets for mops	
17. Disposable cloths	
18. Surgical masks	
19. FFP3 respirators	
20. Disposable powder-free nitrile gloves [not polythene]	
21. Disposable plastic aprons	
22. Disposable gowns	
23. Disposable goggles	

**Putting on and removing PPE checklist**

The order of putting on is less critical than the order of removal.

**Putting on order:**

1. Apron/gown	
2. Surgical mask or respirator	
3. Eye Protection	
4. Gloves	

PPE must be removed in an order that minimizes the risk of cross contamination a buddy observer can be useful.

**Order of removal:**

1. Gloves roll together	
2. Apron/gown roll into itself	
3. Eye Protection from behind	
4. Surgical mask or respirator from behind	

**Hands must be decontaminated immediately after removing all PPE**





# Guide to donning and doffing PPE: Droplet Precautions


## for health and social care settings

### Donning or putting on PPE

Before putting on the PPE, perform hand hygiene. Use alcohol handrub or gel or soap and water. Make sure you are hydrated and are not wearing any jewellery, bracelets, watches or stoned rings.

- 1** Put on your plastic apron, making sure it is tied securely at the back.  

- 2** Put on your surgical face mask, if tied, make sure securely tied at crown and nape of neck. Once it covers the nose, make sure it is extended to cover your mouth and chin.  

- 3** Put on your eye protection if there is a risk of splashing.  

- 4** Put on non-sterile nitrile gloves.  

- 5** You are now ready to enter the patient area.  


### Doffing or taking off PPE





Surgical masks are single session use, gloves and apron should be changed between patients.

- 1** Remove gloves, grasp the outside of the cuff of the glove and peel off, holding the glove in the gloved hand, insert the finger underneath and peel off second glove.  

- 2** Perform hand hygiene using alcohol hand gel or rub, or soap and water.  

- 3** Snap or unfasten apron ties the neck and allow to fall forward.  


Snap waste ties and fold apron in on itself, not handling the outside as it is contaminated, and put into clinical waste.

- 4** Once outside the patient room. Remove eye protection.  

- 5** Perform hand hygiene using alcohol hand gel or rub, or soap and water.  

- 6** Remove surgical mask.  

- 7** Now wash your hands with soap and water.  




**APPENDIX 3**

**Housekeeping checklist for Pandemic Influenza**

1. Enhanced cleaning is necessary during the Pandemic period. Housekeeping/cleaning staff must be trained in how to wear PPE and precautions to take when cleaning influenza areas	
2. Non-influenza areas must be cleaned first, working from clean to dirty areas	
3. Avoid touching the eyes, nose and mouth	
4. If working in immediate area with influenza patients wear disposable gloves, apron and a surgical mask	
5. When wearing a surgical mask ensure it covers both the nose and mouth, does not dangle around the neck, is not touched once put on and is changed when moist	
6. Before leaving influenza area, dispose PPE into infectious waste bin, removing masks last, and seal bag ready for disposal. Wash hands.	
7. If working in areas where influenza patients have been (but are no longer there) wear disposable gloves and aprons.	
8. Before leaving influenza area remove gloves and aprons and dispose into infectious waste bin, seal bag ready for disposal. Wash hands.	
9. Use freshly prepared neutral detergent and hot water for cleaning.	
10. Damp dust rather than dry dusting or sweeping	
11. Do not use sprays, as these create aerosols.	
12. Mops - mop heads must be laundered following use and stored inverted and dry. Alternatively, disposable mop heads can be used and changed after cleaning an influenza area	
13. Use separate colour-coded mops and buckets for influenza and non influenza areas	
14. Use separate cleaning cloths and equipment in influenza areas. Dispose of cloths after use and leave equipment clean and dry.	
15. As a minimum clinical and waiting areas should be cleaned daily and post influenza session	
16. Frequently touched surfaces such as door handles should be cleaned at least twice daily where possible.	
17. Replenish alcohol gel and soap dispensers	
18. Where changing facilities are available, wear different clothes at work from home. Where able, avoid travelling in work clothes and launder daily.	

# CATCH IT

Germs spread easily. Always carry tissues and use them to catch your cough or sneeze.



# BIN IT

Germs can live for several hours on tissues. Dispose of your tissue as soon as possible.



# KILL IT

Hands can transfer germs to every surface you touch. Clean your hands as soon as you can.



**NHS**

© Crown copyright 2007 284596/A4 1p 80k Nov07 (BCL)

## **General principles of infection prevention and control in the event of pandemic influenza**

Infection control assumptions for pandemic influenza are based on current knowledge about seasonal influenza viruses. These include:

Person-to-person spread of human influenza viruses is well established

The patterns of transmission observed during nosocomial outbreaks of influenza suggest that large droplets and contact (direct and indirect) are the most important and most likely routes of spread

Airborne or fine droplet spread may occur in some settings (e.g. during the performance of aerosol generating procedures in healthcare settings)

The incubation period of human influenza ranges from 1-5 days (typically 2-3)

Infectivity is proportional to symptom severity and maximal in the first few days after the onset of symptoms

The period of communicability is typically up to 7 days after symptom onset in adults and possibly longer in children, although longer periods of virus shedding have been documented in a small proportion of children

Virus excretion may be considerably prolonged in immunocompromised patients.

Virus may be recovered from infected but pre-symptomatic persons, but there is little published evidence to support person-to-person transmission of influenza from a pre-symptomatic individual to a susceptible host

Influenza viruses are easily deactivated by washing with soap and water, alcohol based hand sanitizers, and cleaning with normal household detergents and cleaners

Pandemic infection control measures in all general settings will be based around:

Persons with symptoms staying in their own homes

Persons who develop symptoms at work or whilst away from home, returning to home as quickly as reasonably possible

Good respiratory hygiene practiced by all

Frequent hand-washing practiced by all

Appropriate cleaning of frequently touched hard surfaces in the home and in public places

Avoidance of unnecessary contact with others and unnecessary overcrowding (reduction of contact rates)

Rapid access to antiviral treatment for symptomatic persons (reduction in transmissibility)

In health and communal care settings, additional measures will include:

Prompt recognition (and treatment) of staff with influenza

Exclusion of staff with respiratory symptoms

Segregation of staff into those dealing with influenza patients and those not (with exceptions)

Maintaining physical and/or temporal separation between 'flu' and 'non-flu' patients/clients

Standard Infection Control Principles

Droplet Precautions PHE

Personal Protective Equipment (PPE) according to the risk of exposure

Environmental cleaning and disinfection.

## USEFUL CONTACTS

Name	Designation	E mail	Telephone number
Teresa Lewis	ADIPC	teresalewis@nhs.net	01502 445251 07775852091
PHE East of England Health Protection Team	PHE	Generic email: <a href="mailto:EastofEnglandHPT@phe.gov.uk">EastofEnglandHPT@phe.gov.uk</a> Secure NHS email: <a href="mailto:PHE.EoEHPT@nhs.net">PHE.EoEHPT@nhs.net</a>	0300 3038537 (Manned 9 – 5 Gives on call numbers out of hours)