This document replaces previous interim Infection Control guidance
## Part 1: INFLUENZA and SARS

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There are different strains of influenza A viruses that affect birds and pigs (swine).

Outbreaks associated with high bird mortality are called highly pathogenic avian influenza to distinguish them from less pathogenic influenza strains.

At present, the H5N1 subtype of the influenza A virus is not easily transmitted to humans.

The H1N1 subtype of the influenza A virus affecting pigs may occur in humans.

Pandemic influenza may occur when a new influenza A virus subtype emerges and can cause infection in humans.

Contingency plans are in place to deal with an influenza pandemic.

**BACKGROUND**

**Avian Influenza A/H5N1**

Avian influenza (bird flu) is a disease of birds caused by influenza viruses closely related to human influenza viruses. It naturally circulates in wild waterfowl such as ducks and geese; other bird species are susceptible and it may cause severe disease with high mortality. Since December 2003 there have been outbreaks of an avian influenza caused by H5N1 subtype of the influenza A virus, associated with high mortality affecting poultry in central and east Asia.

Transmission of H5N1 does not seem to infect humans easily. There have been reports of transmission of avian influenza to humans from very close contact with poultry or other affected birds but these have been very infrequent. There have been no reports to date of sustained human-to-human transmission.

**Swine influenza A/H1N1**

Is caused by a strain of influenza A virus (H1N1) that causes swine flu, a respiratory disease normally found in pigs but human cases can and do occur. The current wave of human cases (2009) were first reported in Southern California, Texas and Mexico.

Transmission of this new A/H1N1 influenza virus is thought to occur in the same way as seasonal flu. The infection can be effectively treated with antiviral medication. Most reported cases in the UK have been mild and most have recovered fully after treatment.

**Influenza Pandemic**

Pandemic influenza may occur when a new influenza A virus subtype emerges which is markedly different from recently circulating strains and is able to infect humans and spread efficiently from person to person and cause significant clinical illness in a high proportion of those infected.

Contingency plans are in place and Trusts are tasked with preparedness planning.
In March 2003, the World Health Organisation (WHO) issued a global health alert to a new atypical pneumonia, called severe acute respiratory syndrome (SARS) reported in South East Asia.

The risk of SARS in UK is currently very low.

Global surveillance continues as SARS could re-emerge.

SCOPE AND PURPOSE OF POLICY

Scope
This policy applies in all PCT healthcare settings. It applies to the care of a patient (adult or child) presenting with acute febrile respiratory tract illness where influenza is suspected or proven and where clinical and epidemiological features meet current diagnostic criteria for seasonal, swine or avian influenza (and/or SARS where the possibility of SARS has arisen).

The policy covers infection prevention and control measures. Treatment of patients with influenza and use of antiviral agents such as Tamiflu (oseltamivir) is outside the scope of this policy; clinicians should follow national best practice guidance.

Purpose
To prevent transmission of infection in healthcare settings; to protect healthcare staff from exposure to respiratory tract secretions (droplet and aerosol); to prevent transmission to other patients in healthcare settings.
Influenza is a respiratory illness characterized by fever, cough, headache, sore throat, aching muscles and joints.

The period of infectivity is from day before onset of symptoms to about 7 days after.

Influenza is spread from the respiratory tract of people with flu who shed virus in droplets during the period of infectivity.

It can be spread person to person by large droplet transmission from direct close contact (within 1 metre).

Droplets may also contaminate an infected person’s immediate environment.

Large droplets are the most important routes of transmission.

### Period of infectivity

The typical incubation period for influenza can be up to 7 days, with an average of 2-5 days.

Adults can be infectious from the day before symptoms begin through to about 5-7 days after illness onset.

Children can be infectious for about 7 days or longer; young children can shed virus for several days before their illness onset. Severely immunocompromised persons can shed virus for weeks or months.

### How influenza is spread

*By droplets from the respiratory tract of an infected person (range 1 metre).*

**Droplet transmission:**

- **DIRECTLY** from person to person - through close contact with a coughing or sneezing infected person through large droplets from the respiratory tract during the period of infectivity.

- **INDIRECTLY** - Droplets from the respiratory tract of an infected person may contaminate the immediate environment. Droplets can then be transferred from contaminated surfaces onto hands (the virus can survive for limited periods of time in the environment). Any virus from the environment (droplet contamination) is easily inactivated by alcohol hand disinfectant. Contact spread is therefore important and can be controlled by frequent hand hygiene and environmental cleaning.

*Balance of evidence points to large droplets (direct and indirect) as the most important routes of transmission.*

**Airborne or fine droplet transmission**

- May occur in certain situations that could increase the potential for generation of small aerosols in the immediate vicinity of the patient - for example during aerosol-generating medical procedures (e.g. endotracheal intubation, open suctioning, nebuliser treatment, bronchoscopy).
Preventing transmission of infection

Understanding the routes of transmission is key to understanding the measures needed to prevent transmission in the workplace.

Infection control measures focus on

- Appropriate personal protective equipment (PPE) for healthcare staff; correct use of PPE and hand hygiene to avoid contamination.
- Cleaning/decontamination of immediate environment (where potential for contamination by droplets).
- Isolation care in hospital (side room or cohort area); assessment away from other patients;
- Patient masking during assessment where appropriate.

See next section for guidance on care of patients with seasonal influenza/swine flu, avian flu or SARS.

Table: Overview of infection control precautions to prevent transmission of influenza virus.

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<td>Standard precautions and</td>
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<td>Wear surgical mask when in side room/bay or within 1m of infected person</td>
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<td>Segregation of the coughing and sneezing patient; ask patient to wear surgical mask</td>
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<tr>
<td><strong>Indirect: contact with items contaminated by large droplets</strong></td>
<td><strong>Standard Infection Control precautions</strong></td>
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<td>Large droplets (from respiratory tract of an infected person) may contaminate the environment for short periods; *flu virus can be transmitted by indirect contact from contaminated surfaces onto hands.</td>
<td>Hand hygiene after each and every contact (alcohol gel or soap/water)</td>
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<td></td>
<td>Environmental cleaning – as standard policy</td>
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<td></td>
<td>FFP3 respirator mask, eye protection and gown when performing aerosol-generating procedures</td>
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## PATIENT WITH SUSPECTED INFLUENZA

### Case definitions and diagnostic criteria

Use Health Protection Agency and Dept of Health websites for up to date information and guidance to establish whether the patient meets case definition criteria.

*Unless avian flu becomes prevalent, a patient with fever and meeting the clinical criteria for influenza should be treated as for SEASONAL/SWINE FLU throughout this policy.*

*Patients with avian influenza will be managed with the same precautions and with additional guidance from infection prevention and control team. In event of a pandemic follow guidance in pandemic flu section.*

### Seasonal and swine influenza A/H1N1v

A person presenting with sudden onset of high fever (>38°C) and
Respiratory symptoms such as cough or difficulty breathing and/or influenza-like symptoms

Use up to date information and full guidance - go to [www.hpa.org.uk](http://www.hpa.org.uk) and follow links from ‘Swine influenza’ in infectious diseases topics a-z).

### Avian influenza A/H5N1v

For up to date information and algorithms go to [www.hpa.org.uk](http://www.hpa.org.uk) and follow links from ‘Avian influenza’

A person presenting with sudden onset of high fever (>38°C) and
Cough or difficulty breathing and/or influenza-like symptoms and
Travel in the 7-10 days before onset of illness to an area in which there has been transmission of avian Influenza during the travel period or
had close contact with live poultry (chickens, ducks, geese, turkeys) wild birds or pigs from an affected area in the 7 days before onset of symptoms.
PATIENT WITH SUSPECTED INFLUENZA

Assessment

Use the Health Protection Agency guidance for assessment and management of patients presenting with a febrile respiratory illness; including investigation and/or initial management of returning travellers from countries affected by avian influenza.

The guidance is not reproduced here as it is regularly being changed - check HPA website for updates at www.hpa.org.uk. Follow links from A-Z of infectious diseases for ‘swine flu’ or ‘avian flu’ as appropriate (go to ‘information for healthcare professionals’).

- Check whether diagnostic criteria are met using the relevant guidance from HPA/Dept Health websites; this is the responsibility of the assessing practitioner.

Infection Control precautions during assessment

- Follow standard infection control precautions, including strict hand hygiene and take droplet precautions (wear surgical mask) when in close patient contact (within 1 metre). See page 17.9.

- Keep patient at home if possible, and away from communal areas. As patient to follow respiratory etiquette (see next page).

If clinical diagnostic criteria for influenza are met:

- NOTIFICATION: inform the Regional flu centre or the HPU as appropriate - see box below.

- Take appropriate specimens (viral swabs) for laboratory diagnosis where recommended (will also depend on epidemiology/type of influenza suspected); follow current hpa guidance or seek advice from Microbiologist.

- If the patient requires hospital admission inform the receiving clinician (see next page).

NOTIFICATION (cases meeting HPA clinical criteria)

Regional Flu Response Unit on 0845 425 1758
Health Protection Unit on 0845 055 2022;
Out of hours duty Public Health Doctor via St Mary’s switchboard

17.6
**PATIENT WITH SUSPECTED INFLUENZA REQUIRING HOSPITAL ADMISSION**

**The coughing/sneezing patient:**

*In all cases the patient should be asked to observe respiratory etiquette and to wear a surgical mask until s/he is in the isolation room or cohort bay.*

- **Patient masking:** in common waiting areas or during transport, ask the patient to wear a surgical mask, where appropriate.
- **Segregate the patient from other patients pending admission as far as practicable.** (During assessment, where possible, see the patient in a separate area or room; avoid communal waiting areas).

**Patient placement**

**Suspected seasonal flu or swine flu**

- Admit to a side room (wherever possible) or to a cohort ‘flu’ isolation bay with the door closed (if not enough side rooms - seek advice from IPCT/Bed Management).
- It is NOT necessary for the side room to have special ventilation requirements.
- It is NOT necessary to admit via special route.

**Suspected avian influenza - when prevalent**

- Admit to a side room with the door closed. A room with special ventilation requirements should be used if available (special ventilation requirements are not necessary in a pandemic).
- If the patient is being directly admitted from primary care arrange transfer so that patient is not taken through other patient care areas en route to the isolation room.

**Infection control precautions**

Follow standard precautions including hand hygiene and take droplet precautions (wear surgical mask) when in close proximity to the patient (within 1 metre) and/or when in the side room. See pages 17.9-13.
PATIENT WITH SUSPECTED INFLUENZA REQUIRING HOSPITAL ADMISSION

Notification

Inform Infection prevention and Control team (IPCT) whenever a patient is admitted to hospital with suspected influenza of any type:

Nurse in charge

- Inform Infection prevention and control if a patient is admitted with suspected influenza and requiring isolation care and/or where droplet precautions (surgical masks) are being used.
- Document in patient record that IPCT have been informed.

Infection Prevention and Control  Tel 53 4882

Ward Doctor responsible for patient

- Inform the duty Medical Microbiologist if a patient is admitted to hospital and meeting clinical criteria for influenza.
- For patients admitted to hospital - diagnostic viral swabs are recommended (nose and throat swabs – GREEN PACK); this should be in addition to full diagnostic work-up including blue throat swab for routine culture bacterial pathogens if clinically indicated.

Consultant Microbiologist  Tel 53 4807

The Microbiologist/ICD and infection prevention & control nurses can help assess and review the diagnosis of influenza; this will inform and ensure appropriate infection control precautions.

DURATION OF INFECTION CONTROL (DROPLET) PRECAUTIONS

- Until the diagnosis of influenza has been excluded or
- 7 days have elapsed since onset of symptoms, (may need to be longer in children) whichever is sooner or
- As advised by IPCT
PERSONAL PROTECTIVE EQUIPMENT

Recommendations

Direct patient care
- Follow standard infection control precautions, including strict hand hygiene.

and
- Take DROPLET precautions: wear a surgical mask while in close proximity to the patient (within 1 metre) and when in the side room or cohort bay; wear plastic apron and gloves for direct patient care contact (see ‘personal protective equipment’ on next page).

- Ensure that all staff proving direct patient care understand how to use PPE correctly.

Activities with high risk of aerosol
- For procedures that have a high likelihood of generating infectious respiratory aerosols - high risk aerosol-generating procedures (see box below) take additional precautions

† See page 17.12 for guidance or use of PPE for aerosol-generating procedures.

Aerosol-generating procedures include
endotracheal intubation and related procedures
respiratory and airways suction
nebuliser treatment
bronchoscopy
Resuscitation (i.e. emergency intubation or cardiac pulmonary resuscitation)
High oscillating drills including post mortem room use.

See opposite page for summary of recommendations for personal protective equipment for care of patients with influenza.

See pages 17.11-17.13 for guidance on use of surgical masks and respirator masks.

17.9
Summary of recommendations:

Personal protective equipment for care of patients with influenza

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<th>ENTRY TO ROOM OR COHORTED AREA BUT NO PATIENT CONTACT&lt;sup&gt;a&lt;/sup&gt;</th>
<th>CLOSE PATIENT CONTACT (within 1 metre)</th>
<th>AEROSOL GENERATING PROCEDURES&lt;sup&gt;b,c&lt;/sup&gt;</th>
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<tbody>
<tr>
<td>Hand hygiene</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Gloves</td>
<td>x&lt;sup&gt;d&lt;/sup&gt;</td>
<td>✓&lt;sup&gt;e&lt;/sup&gt;</td>
<td>✓</td>
</tr>
<tr>
<td>Plastic apron</td>
<td>x&lt;sup&gt;d&lt;/sup&gt;</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>Gown</td>
<td>X</td>
<td>x&lt;sup&gt;f,g&lt;/sup&gt;</td>
<td>✓&lt;sup&gt;g&lt;/sup&gt;</td>
</tr>
<tr>
<td>Surgical mask</td>
<td>✓</td>
<td>✓</td>
<td>x</td>
</tr>
<tr>
<td>FFP 3 respirator</td>
<td>X</td>
<td>x</td>
<td>✓</td>
</tr>
<tr>
<td>Eye protection</td>
<td>X</td>
<td>Risk Assessment</td>
<td>✓</td>
</tr>
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<sup>a</sup> Standard Infection Control Principles apply at all times

<sup>b</sup> Examples of aerosol-generating procedures include intubation, nasopharyngeal aspiration, tracheostomy care, chest physiotherapy, bronchoscopy, nebuliser therapy, and autopsy of lung tissue (see page 17.9).

<sup>c</sup> Wherever possible, aerosol-generating procedures should be performed in side rooms or other closed single-patient areas with minimal staff present.

<sup>d</sup> Gloves and apron should be worn during certain cleaning procedures (as Standard Precautions).

<sup>e</sup> Gloves should 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 always for contact with blood and body fluids, invasive procedures, and contact with sterile sites.

<sup>f</sup> Consider 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 carried for babies)

<sup>g</sup> If non-fluid repellent gowns are used a plastic apron should be worn underneath.
PERSONAL PROTECTIVE EQUIPMENT - DROPLET PRECAUTIONS

Use of surgical masks

*Surgical masks provide benefits against large droplet exposure,* and should be worn for health care activities for direct care of patients with confirmed or suspected influenza.

Recommendations

*Droplet precautions include use of a surgical mask and eye protection (where indicated) when in close proximity (<1m) with an infectious patient.*

‘Droplet precautions’ where indicated, are *in addition* to Standard infection control precautions to prevent exposure to body fluids, secretions and excretions (e.g. hand hygiene, environmental and equipment cleaning).

- Wear a *surgical mask* for all patient care activities when in the side room/cohort bay or when in close proximity with an infectious patient (within 1 metre).
- Use additional eye protection (base on risk assessment) if there is risk of splashing.
- Wear appropriate personal protective wear gloves and plastic apron for activities that involve direct contact with the patient and their immediate environment.
- FFP3 respirator masks are not indicated unless high-risk aerosol-generating procedures are being performed - see page 17.9 (if a patient has confirmed avian influenza follow guidance from IPCT on respirator use).

Staff should use PPE correctly and must remove after use in a way that minimises risk for contamination.

After leaving the room or area and after use, gloves and aprons should be removed first; the mask should be removed last, taking care not to touch the mask exterior.

See use of masks and respirators on page 17.12-13.
PERSONAL PROTECTIVE EQUIPMENT – USE OF FFP3 RESPIRATOR MASKS

Airborne precautions
Fine particulate filter (FFP) masks are used to prevent contamination of the respiratory tract and environment with fine droplet aerosol. Airborne precautions apply the same principles as large droplet precautions, with additional protective measures to reduce risk from fine droplet transmission during high-risk activities.

Recommendations
Wear FFP3 respirator masks for:
- High-risk aerosol generating procedures on patients meeting case criteria for influenza.
- If advised by IPCT (other confirmed infections transmissible by respiratory route).

Healthcare staff should adhere to current recommendations and should only use FFP3 respirators where advised.

Aerosol-generating procedures
Aerosol-generating procedures include intubation, nasopharyngeal aspiration, tracheostomy care, chest physiotherapy, bronchoscopy and nebuliser therapy. See full list on page 17.9.

- The performance of aerosol-generating procedures should be minimized as far as is feasible without compromising patient care.
- Activity to be performed in a side room/single room (wherever practicable) and with the door closed.
- Limit personnel in the room to the minimum number necessary to perform the procedure.
- Staff involved in the aerosol generating procedure to wear: FFP3 respirator mask, eye protection, long sleeved gown and gloves.
- Staff to have been correctly fit tested and trained in correct use of masks and PPE (see page 17.14).

Other types of respiratory protective equipment (e.g. hoods/helmets) can be made available if necessary (seek advice from Occupational Health).
To offer protection, surgical masks and respirators must be worn correctly and consistently throughout the time they are used.

Healthcare staff who provide direct patient care must ensure they are familiar with correct use of PPE.

Staff who may need to wear respirator masks must ensure they have been fit tested by Occupational Health or an approved trainer.

A fit check should be carried out each time a respirator is worn.

Change the respirator if it gets contaminated or if a proper fit cannot be maintained.

After use the mask should be removed last; the outside must not be touched and it should be disposed of as clinical waste.

To offer protection, surgical masks and respirators must be worn correctly and consistently throughout the time they are used.

Wearing a surgical mask or respirator incorrectly, or removing or disposing of it improperly, could allow contamination of the hands or mucous membranes of the wearer or others, possibly resulting in disease transmission.

Proper surgical mask or respirator use and removal includes the following:

- Before putting on a respirator or surgical mask wash hands with soap/water or use alcohol gel.
- Put respirator masks on carefully and check fit each time respirator is worn; it must seal tightly to the face or air will enter from the sides.
- Avoid touching the outside of the mask to help prevent contamination of hands (a respirator or surgical mask may become contaminated with infectious material).
- Change the respirator mask if: Breathing becomes difficult; the mask becomes damaged or distorted; the mask is contaminated by body fluids or patient’s respiratory secretions; a proper face fit cannot be maintained (if it needs changing, go to a safe area and change the respirator, disposing of it carefully).
- Otherwise, change a mask when clinically appropriate e.g. after completion of aerosol generating procedure and/or after leaving the room.
- After use, remove the surgical mask or disposable FFP3 respirator – without touching the outside – and after first removing other items of PPE; discard as clinical waste. Wash hands with soap and water or use alcohol hand gel.

17.13
OCCUPATIONAL HEALTH AND SAFETY

Fit testing for use of FFP3 respirators

Type of Respirators
When airborne precautions are recommended (indicated in policy or advised by infection prevention and control) a disposable respirator providing the highest possible protection factor available should be made available. Respiratory protective equipment must be compatible with other PPE (e.g. safety glasses) required for a procedure. (IPCT will advise and liaise with Occupational health on correct models for use and their availability).

Recommendations – fit testing

Fit testing is important. If the wearer is not suitable for a half-mask respirator because of fit issues they will not have adequate protection.

- Healthcare Staff who may perform aerosol-generating procedures (see page 17.9) should be medically cleared, trained and fit-tested for respirator use.

- Occupational Health and/or designated trainers will provide fit testing training for Trust Healthcare staff.

- Training topics will include the following:
  - Proper fit-testing, wearing and use of respirators
  - Safe removal of respirators
  - Safe disposal of respirators
  - Medical contraindications to respirator use.

Fit is critical: a fit check should be carried out each time a respirator is worn; it must seal tightly to the face or air will enter from the sides. (A good fit can only be achieved if the area where the respirator seals against the skin is clean-shaven; beards, moustaches and stubble may cause leaks around the respirator).

Healthcare staff who may need to use respiratory masks are responsible for ensuring they receive fit testing; they are also expected to be familiar with this policy guidance.

Approved respirators are available from Supplies or Bed Management for use where indicated. Models may differ and fit testing is needed for each type.

Every user should be fit tested and trained in the use of the respirator. This is an HSE requirement.

Contact Occupational Health to arrange fit testing.
Healthcare staff with flu-like symptoms should not attend work.

Healthcare staff with flu-like symptoms should stay at home and report sick in the normal way. Healthcare staff who develop flu-like symptoms should also inform occupational health.

Inform occupational health as soon as possible stating:
Nature of flu-like symptoms; date of onset; area of work
Early contact with Occupational health is important and may help assist management decisions about Tamiflu prophylaxis where indicated.

It may be possible to take viral nose/throat swabs from Healthcare staff who report with symptoms developing to Occupational Health before they go off work.

Healthcare staff who have had recent influenza

Healthcare staff who have recovered from recent flu-like illness should also inform Occupational Health.

This will assist Occupational health review healthcare staff and keep a record of staff who may have immunity to the circulating strain of influenza.

Healthcare staff who are pregnant or who have health-related concerns about providing direct care for patients with influenza

Correct use of PPE and surgical masks will minimise risk of transmission of infection in the workplace.

Pregnant staff should not be deployed for direct care of patients with influenza. Seek advice.

Staff with specific health concerns or risk factors (e.g. respiratory health problems) should be referred or should self refer to Occupational Health for advice and guidance.

Healthcare staff who have provided direct care for patients with confirmed influenza who feel they have been exposed to infection

Should be referred or should self refer to Occupational Health for advice and risk assessment as to whether Tamiflu prophylaxis is indicated.

Staff who have recovered from influenza will have immunity and should inform Occupational Health.

Healthcare staff who are pregnant should not provide direct care of patients with influenza.

Healthcare staff with concerns about occupational exposure to influenza should seek advice from Occupational Health.
The risk of SARS in UK is currently very low.

SARS – diagnosis suspected

see HPA website for current version of case criteria

Clinical case definition of severe acute respiratory syndrome (SARS)

and

travel history to a previously affected area: mainland China, especially Guangdong province and Hong Kong or laboratory worker in an institute working with specimens from SARS patients.

Refer to HPA website at www.hpa.org.uk for up to date clinical case definitions and guidance.

NOTIFICATION

If case criteria met or diagnosis suspected

Inform and Seek immediate advice from

Public Health on tel 814281

Consultant Microbiologist/ICD if patient requires hospital admission on tel 534807; out of hours via switchboard.

INFECTION CONTROL PRECAUTIONS

Follow recommendations on pages 17.17-17.18 and expert guidance from IPCT and Consultant Microbiologist.

It is important that only staff well versed in isolation care practice and correct use of PPE provide direct care for the patient.

Take appropriate precautions until advised by IPCT and/or diagnosis established.
INFECTION CONTROL PRECAUTIONS (SARS)

During initial assessment

As soon as diagnosis suspected and pending infection prevention and control guidance and decisions about clinical care:

- Keep the patient in side room, segregated from other patients, and adhere to strict DROPLET precautions: wear a surgical mask while in proximity to the patient and when in the room or assessment bay; see page 17.11.
- Use FFP3 respirator masks for all aerosol-generating procedures and as advised by IPCT once notified.
- Limit staff direct contact to an essential minimum
- As the patient to wear a surgical facemask and observe respiratory etiquette if appropriate.
- Take the names of any staff who may have performed high-risk aerosol generating procedures without adequate PPE at the time of assessment (e.g. emergency intubation or resuscitation).

If patient requires hospital admission

Patient placement

*See separate guidance for recommendations for patient transport and hospital admission/transfer policy.

Single room isolation (special ventilation) is an absolute requirement. Inform Infection Control and Bed manager (if not already informed).

the patient may require transfer to a Specialist Unit – the senior clinician responsible should seek and follow specialist advice (see ‘Notification’).

- Transfer to specialist Unit - this will depend on probability of diagnosis and expert advice.
- If transfer is not feasible, not advised or delayed admit to single room (special ventilation) and the door closed. Newchurch ward or ICU (room 1). Arrange transfer of patient to the isolation room by a pre-agreed route so the patient is not taken through other patient care areas.
INFECTION CONTROL PRECAUTIONS (SARS)

Respiratory isolation care

Use of personal protective wear (PPE)

- Single room with special ventilation with the *door closed*.
- Restrict access to the isolation room. (Nurse in charge should limit to necessary staff, familiar with isolation care techniques).
- Wear FFP3 respirator mask for all direct patient contact and before entering the room.
- Wear apron, gloves, eye protection and other PPE according to standard precautions.
- Strict hand hygiene before and after each patient contact, after contact with the patient’s immediate environment, after removal of PPE and before leaving the isolation room.
- Restrict visitor access – follow guidance from IPCT

**Follow standard precautions and aerosol precautions:**

**Before entry to isolation room**

- Put on FFP3 respirator mask (see guidance for use on pages 17.15-16) and plastic apron or gown and gloves.
- Wear eye protection and water impermeable gown for aerosol-generating procedures and where indicated by risk assessment.

**Before leaving the isolation room:**

- Remove all PPE safely and in the following sequence: remove apron/gown first, then gloves and remove respirator mask last.
- Dispose of items of PPE as clinical waste in yellow bag, then wash hands or apply alcohol gel. After leaving the room clean hands again with handgel.
Part 2 PANDEMIC FLU

Read in conjunction with
Section 1: Influenza and Sars
Trust Pandemic Flu incident plan
Department of Health and HPA guidance

PANDEMIC INFLUENZA
INFECTION PREVENTION AND CONTROL MEASURES
INFLUENZA PANDEMIC: INFECTION CONTROL PRECAUTIONS AND GUIDELINES IN HOSPITAL AND PRIMARY CARE SETTINGS

Guidance applies to any influenza pandemic where large numbers of patients may require admission to hospital but primarily to a pandemic caused by avian influenza where mortality and morbidity appears higher than with swine influenza.

Guidance is based on guidance from the Dept. of Health and adapted for local policy. Read in conjunction with previous sections of this policy: the same principles and recommendations apply unless otherwise specified.

OVERVIEW OF PANDEMIC INFLUENZA AND INFECTION CONTROL

KEY POINTS

Health impacts of a pandemic in the UK
- The elderly, young adults, and children may be particularly affected
- Clinical and serological attack rates may be 25% and 50%, respectively
- 50,000 or more deaths are possible
- Substantial demand for health care services in both primary care and hospital settings is likely

Clinical features of influenza
- Fever, dry cough, and abrupt onset
- Headache, sore throat, runny or stuffy nose, aching muscles and joints, and extreme tiredness also possible
- Adults can be infectious from a day before symptoms begin through about 5 days after illness onset. Children can be infectious for about 7 days; young children can shed virus for several days before becoming ill

How influenza is spread
- Transmitted from person-to-person through close contact. Balance of evidence points to large droplet and direct and indirect contact transmission as the most important routes
- Airborne or fine droplet transmission may also occur, especially during aerosol generating procedures

Prevention of influenza transmission
- Strict adherence to infection control practices especially hand hygiene, containment of respiratory secretions and the use of personal protective equipment (PPE)
- Adherence to Standard Infection Control Principles and Droplet Precautions
- Administrative controls e.g. separation or cohorting of patients with pandemic influenza
- Restriction of symptomatic workers and visitors
- Education of staff, patients and visitors
**Influenza pandemic**

Attention to non-pharmaceutical methods of control (as outlined in this guidance) will be particularly important to reduce exposure, there may be limited supplies of antiviral drugs and a specific pandemic vaccine will be largely unavailable.

**Core principles of containment and infection control to prevent transmission of flu virus**

- Timely recognition of cases of influenza.
- Consistent and correct implementation of appropriate infection control precautions to limit nosocomial transmission. Standard Infection Control Principles and Droplet Precautions are applicable in most circumstances. In certain situations these control measures may need to be augmented with higher levels of respiratory protection.
- Administrative controls, such as the segregation or cohorting of patients with pandemic influenza from those who have other medical conditions.
- Use of auxiliary measures such as restricting ill workers and visitors from the facility.
- Education of staff, patients, and visitors about the transmission and prevention of influenza that is understandable and applicable.
- Treatment of patients and staff with antivirals* can reduce infectiousness and duration of illness.
- Vaccination* of patients and staff.

*During the initial stages of a pandemic there may be limited supplies of antiviral drugs and a specific pandemic vaccine will be largely unavailable. Both interventions will therefore be prioritised in accordance with Dept of Health policy.

**KEY POINTS**

Hand hygiene and droplet precautions (containment of respiratory secretions) are essential.

Signage and posters should be displayed prominently to raise public and staff awareness of these basic and critical infection control measures.

Use of PPE should be informed by available evidence and proportional to the risk of contact with respiratory secretions and other body fluids, and type of work/procedure being undertaken. (In a flu pandemic, the IPCT and Incident Team will provide additional guidance).
Influenza pandemic

Good hand hygiene practice using soap and water, gel where appropriate.

See Hand hygiene policy.

INFECTION CONTROL PRECAUTIONS

Hand hygiene and droplet precautions

These are the most important precautions to prevent transmission of influenza in healthcare settings (see ‘influenza transmission and infectivity’ on p. 17.3).

Strict hand hygiene practice and droplet precautions (containment of respiratory tract secretion and correct use of PPE) are key to protecting healthcare staff and preventing transmission of influenza.

Hand hygiene Recommendations

During outbreaks of pandemic influenza strict adherence to hand hygiene recommendations should be enforced.

- Hands should be decontaminated before and after all direct contact with an infected patient or their bed area, removal of protective clothing, and cleaning of equipment.
- Following hand washing, hands should be dried thoroughly using paper towels that are then discarded in the nearest waste receptacle. Waste bins should have foot-operated lids.

Compliance reminders

In a pandemic situation:

- All staff, patients and visitors entering and leaving areas where care is delivered should perform hand hygiene with either soap and water following by drying, or alcohol hand rub.
- Signs and posters will be put up as reminders.
- Consideration will be given to distributing personal carried alcohol rub to certain groups of transient/migratory staff (e.g. medical staff in hospitals and community staff performing home visits) in addition to alcohol rub at the point of care.
Influenza pandemic

Certain patients (e.g. the elderly, children) may need assistance with containment of respiratory secretions.

Those who are immobile will need a receptacle (e.g. a plastic bag) readily at hand for immediate disposal of tissues and a supply of hand wipes and tissues.

DROPLET PRECAUTIONS

Management of the coughing/sneezing patient

Patients, as well as staff, and visitors, should be encouraged to minimise potential influenza transmission through good hygienic 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, or contact with respiratory secretions and contaminated objects
- Keep hands away from the mucous membranes of the eyes and nose.

Patient masking

Where possible, in common waiting areas or during transport (e.g. from the community to an acute hospital or from one area of the hospital to another):

Coughing/sneezing patients should wear a surgical mask to assist in the containment of respiratory secretions and to reduce environmental contamination.

Droplet precautions

See part 1 pages 17.11-17.12 for full guidance on droplet precautions and infection control practice recommendations.

In a flu pandemic droplet precautions are the mainstay of measures to prevent transmission:

- patients should be cared for using droplet precautions at all times
- airborne (fine droplet) precautions (use of FFP3 respirator) is limited to aerosol generating procedures.
- Single room isolation care will not be practicable so patients requiring hospital admission will be cared in a cohorted area away from other patients.

17.23
Influenza pandemic

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

*PPE used correctly will protect staff from contamination with respiratory droplets and reduce risk of transmission of influenza (see also part 1).*

*Care in correct donning and removal of PPE is essential to avoid inadvertent contamination. PPE must be removed before leaving an isolation care area and in the correct sequence (masks being removed last). In a pandemic situation, supplies for PPE may be limited. See following pages for additional guidance.*

**Summary of recommendations:**

**Personal protective equipment for care of patients with pandemic influenza**

<table>
<thead>
<tr>
<th></th>
<th>ENTRY TO COHORTED AREA BUT NO PATIENT CONTACTa</th>
<th>CLOSE PATIENT CONTACT (within 1 metre)</th>
<th>AEROSOL GENERATING PROCEDURESb,c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand hygiene</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Gloves</td>
<td>x⁵</td>
<td>✔⁸</td>
<td>✔</td>
</tr>
<tr>
<td>Plastic apron</td>
<td>x⁵</td>
<td>✔</td>
<td>x</td>
</tr>
<tr>
<td>Gown</td>
<td>X</td>
<td>x¹,g</td>
<td>✔⁹</td>
</tr>
<tr>
<td>Surgical mask</td>
<td>✔</td>
<td>✔</td>
<td>x</td>
</tr>
<tr>
<td>FFP 3 respirator</td>
<td>X</td>
<td>x</td>
<td>✔</td>
</tr>
<tr>
<td>Eye protection</td>
<td>X</td>
<td>Risk Assessment</td>
<td>✔</td>
</tr>
</tbody>
</table>

| a | Standard Infection Control Principles apply at all times |
| b | Examples of aerosol-generating procedures include intubation, nasopharyngeal aspiration, tracheostomy care, chest physiotherapy, bronchoscopy, nebuliser therapy, and autopsy of lung tissue (see ‘use of respirator masks’ on page 17.15-17.16) |
| c | Wherever possible, aerosol-generating procedures should be performed in side rooms or other closed-single-patient areas with minimal staff present. |
| d | Gloves and apron should be worn during certain cleaning procedures (see ‘environmental Infection Control’ on page 17.26-17.28). |
| e | Gloves should 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 always for contact with blood and body fluids, invasive procedures, and contact with sterile sites. |
| f | Consider 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 carried for babies) |
| g | If non-fluid repellent gowns are used a plastic apron should be worn underneath. |

17.24
A surgical mask will provide a physical barrier and prevent contamination of by large droplets.

In a pandemic, supplies of some items of PPE may be limited: the ICT will advise on appropriate items for PPE. Items for use as PPE must be obtained through Supplies only.

Use of Surgical masks and respirator masks

A surgical mask will prevent contamination by large droplets from respiratory tract of an infected person.

In a pandemic, where supplies are short, the same mask may be worn for more than one patient episode in cohort care areas (see below*).

Guidance for use of surgical masks:

- Wear a surgical mask for all close patient contact (e.g. within 1 metre).
- Wear before entering a hospital isolation area and while in the isolation room or cohort zone.
- The mask should cover both the nose and the mouth; do not allow to dangle or remain tied around the neck after use.
- Masks should not be touched once put on.
- Change the mask when it becomes moist or if it becomes soiled or contaminated.
- Masks should be worn once (with exceptions*)
- After use, remove the mask without touching the front; discard in an appropriate receptacle as clinical waste (remove mask last) and clean hands after disposal.

*Use of surgical masks in cohort care areas

Where pandemic influenza patients are cohorted in one isolation care area and multiple patients must be visited over a short time or in rapid sequence:

- It may be practical 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. However, other PPE (e.g. gloves, gown) must be removed between patients and hand hygiene performed.
- All contaminated PPE must be removed before leaving the cohort patient care area. Surgical masks (or FFP3 respirators where used) should be removed last, followed by thorough hand hygiene.

This applies to cohorted areas of a hospital or nursing home, an “influenza clinic”, or GP surgery session for influenza patients.

17.25
Influenza pandemic
The same precautions are required as with surgical masks and with additional requirements for fit testing.

Use of FFP3 respirator masks
In a pandemic, respirator masks are recommended for aerosol generating procedures only.

Use surgical masks for all other types of direct patient care (this is the main difference from recommendations for a single isolated case of proven avian influenza).

Recommendations for use
- Use FFP3 Respirator masks for all aerosol-generating procedures.
- See pages 17.11-17.13 for guidance

See part 1 pages 17.14 – 17.16 for guidance on use of respirator masks and fit testing requirements.

Eye protection
Use eye protection when there is a risk of contamination of eyes by splashes and droplets (e.g. blood, body fluids, secretions and excretions generated through patient care) as per standard precautions. Make an individual risk-assessment at the time of providing care.

Eye protection should always be worn during aerosol-generating procedures.

The following may be used for eye protection:
- Surgical mask with integrated visor or
- Full face visor or
- Polycarbonate safety spectacles or equivalent.

Note: *non-disposable eye protective equipment (e.g. polycarbonate safety spectacles issued as PPE to staff on a long-term basis) pose a potential cross-infection risk. Decontaminate after use (or soiling) using agents recommended by the manufacturer. Decontaminate when leaving an influenza patient cohort area before performing final hand hygiene.
If glove supplies become limited during a pandemic priorities for glove use may need to be established. In this circumstance, gloves should always be prioritised for contact with blood and bloody fluids, invasive procedures, and contact with sterile sites.

Follow guidance from IPCT.

Gloves

Gloves are not required for the routine care of patients with pandemic influenza per se:

- **Follow Standard Infection Control Precautions** (wear gloves for invasive procedures, direct patient contact, during all activities that carry risk of exposure to blood, body fluids, secretions and excretions, and when handling sharps or contaminated instruments, equipment etc).

After the task, remove gloves immediately, dispose of as clinical waste, and perform hand hygiene. **No attempt should be made to wash gloves for reuse.**

Plastic aprons

- **Follow Standard Infection Control Precautions** (wear disposable plastic aprons whenever there is risk of contact with blood, body fluids, secretions and excretions and/or during activities that involve direct contact with the patient or immediate environment).

- Wear plastic aprons as single use items for one procedure or episode of patient care and then discarded and disposed as clinical waste.

- In cohorted areas, change aprons between patients.

Gowns

Gowns are not routinely indicated.

A water impermeable gown is recommended for aerosol generating procedures.

**Wear water a impermeable gown† if:**

- There is high risk of aerosol e.g. for aerosol generating procedures (see page 17.11).

- Risk of extensive splashing of blood, body fluids, secretions/excretions; also if there is extensive soiling of personal clothing or uniform.

- Gowns, if used, should fully cover the area to be protected.

- Wear only once and then dispose of as clinical waste and clean hands immediately after removal.

†Fluid-repellent gowns advised (if non fluid-repellent gown used a plastic apron should be worn beneath).
Influenza pandemic

Refer also to Trust waste policy.

See also laundry policy.

Standard precautions for laundry and linen.

ENVIRONMENTAL INFECTION CONTROL

Clinical and non-clinical waste

No special handling procedures beyond those for Standard Infection Control Principles for clinical and non-clinical waste that may be contaminated. Follow normal waste policy and practice.

- Waste generated within the clinical setting should be managed safely, with attention to disposal of items that have been contaminated with secretions/sputum (e.g. paper tissues).
- Urine and faeces can be safely disposed of into the sewerage system.
- All waste collection bags should be tied and sealed before removal from the patient area. Wear gloves when handling ALL waste, with hand hygiene after glove removal.

Linen and laundry

Linen used during the patient’s care should be managed as per Standard Infection Control and laundry policy.

- Place used linen in appropriate receptacles immediately after use and bag at point of use.
- Linen bags must be tied and sealed before removal from the influenza patient care area. Wear gloves and aprons for handling all contaminated linen, with hand hygiene after glove removal.

Laundry workers: guidance on laundry worker protection is described in HSG (95) 18 Hospital Laundry arrangements for used and infected linen. Staff should be fully trained in laundry operations, including hand hygiene and correct use of PPE.

Hospitals - Bed curtains should be changed following patient discharge or as advised by IPCT.

Primary care - Paper sheeting is a good alternative for use of patient examination couches and should be changed after each patient.
Influenza pandemic

Standard precautions for crockery and utensils.

Crockery and utensils

- No special precautions – follow Standard Infection Control Principles for dishes and eating utensils used by a patient with pandemic influenza.

(Hospital and primary care settings)

- Wash dishes and eating utensils in a dishwasher with a hot rinse. Do not hand wash these items.
- There is no need to use disposable plates/cutlery.

Staff uniforms

Correct and appropriate use of PPE will protect uniforms from contamination in most circumstances.

Follow PCT uniform policy. The following points are reinforced during a pandemic:

- Healthcare workers should not travel to and from work or between hospital residences and place of duty in uniform.
- Hospitals and other healthcare facilities should provide changing rooms/areas where staff can change into uniforms on arrival at work.
- Uniforms should be transported home in a sealed plastic bag, washed separately from other linen, in a load not more than half the machine capacity, in order to ensure adequate rinsing and dilution.
- Hospital/facility laundry services should be used to launder uniforms if they are available.

No wearing of uniform outside areas or work or in public places

In a pandemic situation theatre greens may need to be considered for staff who do not usually wear a uniform:

The infection Control and pandemic coordinating group will advise staff on uniform policy and on laundry policy.
Environmental cleaning and disinfection

Recommendations for patient cohorted areas (including acute hospitals, nursing homes, and prison medical units) and clinical rooms (including GP consulting and treatment rooms) should be cleaned daily at a minimum.

**Recommended Cleaning schedules** (may vary by setting):

<table>
<thead>
<tr>
<th>Hospitals:</th>
<th>as a minimum, daily and after patient discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical rooms (including GP consulting and treatment rooms):</td>
<td>as a minimum, daily (preferably at the end or the beginning of the day) and in-between influenza and non-influenza sessions if the same clinical rooms is used.</td>
</tr>
<tr>
<td>Frequently touched surfaces (e.g. medical equipment, door knobs):</td>
<td>at least twice daily and when known to be contaminated with secretions, excretions or body fluids.</td>
</tr>
</tbody>
</table>

Freshly prepared neutral detergent and hot water for all cleaning (as per normal policy).

**Additional recommendations**

- Use damp rather than dry dusting to avoid generating dust particles.
- During wet cleaning a routine should always be adopted that does not redistribute micro-organisms e.g. by cleaning less heavily contaminated areas first and by changing cleaning solutions and cloths frequently.
- Avoid use of vacuum cleaners.
- Use dedicated or single-use/disposable equipment
- Non-disposable equipment, including mop heads must be laundered after use.
**Spillages**

As Standard Precautions: treat any spillage or contamination of the environment with secretions, excretions or body fluids as per normal spillage policy.

**Cleanliness staff**

In a pandemic situation cleanliness staff

- Should be allocated to specific areas and must not be moved between influenza and non-influenza areas.
- Must be trained in the correct methods of wearing PPE and precautions to be taken when cleaning.
- Should wear gloves and aprons; in addition a surgical mask (droplet precautions) when cleaning in the immediate patient environment in the cohorted isolation care area.

**Furnishings**

- To facilitate cleaning, remove all non-essential furniture, especially soft furnishings from reception and waiting areas in hospitals; GP consulting and treatment rooms, including A&E and day rooms/lounges. (The remaining furniture should be easy to clean and should not conceal or retain dirt or moisture).
- Toys, books, newspapers and magazines should be removed from the waiting area. See also ‘ward furnishings’ in isolation areas in section 11 (‘cleaning policy’).
Influenza pandemic

Patient care equipment

Follow standard practices for handling and reprocessing used and soiled patient-care equipment, including re-usable medical devices, for both influenza and non-influenza areas of hospital and primary care settings.

The following recommendations are reinforced:

**Decontamination of patient care equipment**

- Wear gloves when handling and transporting used patient-care equipment.
- Clean heavily soiled equipment with neutral detergent and hot water before removing from the patient’s room or consulting room.
- Reusable equipment (e.g. stethoscopes, patient couch in treatment and consulting room) must be decontaminated between each patient; visibly soiled equipment should be cleaned promptly. If applicable, follow manufacturers’ recommendations for cleaning and disinfection of reusable patient-care equipment.
- Wipe external surfaces of portable equipment for performing x-rays and other procedures in the patient’s room with neutral detergent and hot water on removal from the patient’s room or consulting room.
- Avoid use of fans or equipment that recirculates air.
- Equipment used in isolation care must be dedicated to the area (if necessary seek advice from IPCT).

Whenever possible, non-critical patient equipment should be dedicated for use by pandemic influenza patients only.

See also Cleaning and Decontamination policies.
Influenza pandemic

During a pandemic there will not be adequate resources for single room isolation care, so patients will be managed in cohorted areas away from other patients.

There is a separate contingency plan for the management of cohort isolation areas during a pandemic.

HOSPITAL CARE

PATIENT PLACEMENT

Patients with symptoms and signs suggestive of pandemic influenza and who require hospital admission or assessment should go to:
- Flu Assessment area (see page 17.37)
- Flu Assessment area (paediatrics – see p.17.38)
- In-patient isolation (cohort) area (adults)
- In-patient isolation (cohort) area (children)
- ICU isolation area (see page 17.39)

SEGREGATION AND COHORTING:

See recommendations for isolation care overleaf.

In the event of an influenza pandemic and where many patients with influenza will require hospital admission, this policy will be activated:

Where pandemic status is announced (DIPC), coordination and bed management of isolation care cohort areas will be the responsibility of an incident management team working in conjunction with the IPCT, CCDC and DIPC.

Follow guidance from Bed Management/PCT Incident Team.

KEY RECOMMENDATIONS

- In all health care settings, patients with symptoms of pandemic influenza should be segregated from non-influenza patients as rapidly as possible.

- Whenever possible, different teams of staff should care for influenza and non-influenza patients. The segregation of symptomatic patients is important in the containment of pandemic influenza.

- Patients requiring hospital admission must be cared for in designated cohort areas. This requires careful consideration of flexible accommodation and staffing arrangements. Patients with pandemic influenza should be managed separately until discharged.
**Isolation care and cohort facilities**

**Recommendations**

In the event of a pandemic with avian influenza:

*Additional expert guidance will be provided in light of day to day contingencies*

- Cohorting of patients in segregated areas of the hospital should be carried out from the outset a pandemic to help contain influenza within one part of the hospital and reduce the risk to other patients.

- Side rooms in non-influenza areas should be reserved for patients requiring isolation for other (non-influenza) reasons;

- Side rooms in influenza segregated areas should be reserved for performing aerosol-generating procedures whenever possible.

- Consideration will be given to cohorting separately patients infected with pandemic influenza and another pathogen (e.g. MRSA) to minimise hospital transmission of other infectious pathogens. This will be dependent on availability of rooms and staff and the number of patients who are infected with both influenza and another pathogen requiring isolation.

- Patients should remain in the designated segregated area until discharged to the community and not allowed to be transferred to other areas purely for bed management purposes.

If there is extreme pressure for beds in the segregated area of the hospital, convalescing patients with residual, non-respiratory problems (i.e. who are unlikely to be secreting virus in large quantities), but who require hospitalisation for other reasons (e.g. poor mobility, non-respiratory complications) may need to be moved to another area of the hospital, an intermediate care facility, or a nursing/residential home. Such convalescing patients should, where possible, be accommodated together and away from other patients (see Community Guidance).

The Infection Prevention Control Team will advise the pandemic flu incident team on priorities and use of facilities for isolation and cohort care.
Special settings:

Patient transport and ambulance

Ambulance

Ambulance staff should follow infection control precautions in this guidance, including recommendations for:

- Hand hygiene and universal (standard precautions)
- Use of PPE and droplet precautions.
- Use of respirator masks for aerosol-generating procedures
- Environment decontamination.

See also ‘the coughing/sneezing patient’ on page 17.7.

Ambulance staff should use this guidance in conjunction with ambulance contingency plans for avian/swine influenza, pandemic flu and SARS.

Ambulance staff/paramedics should be fit tested and trained in correct use of FFP3 respirator masks.
Influenza pandemic

Systems need to be in place for triage and initial assessment.

Screening for signs and symptoms of pandemic influenza in all persons entering the hospital may escalate from passive (e.g. signs at the entrance) to active (e.g. direct questioning) on the advice of the Department of Health and the HPA.

Signage and physical barriers should be used to ensure patients with flu like symptoms go to a separate area to other patients.

The public should take droplet precautions: attention to respiratory hygiene should be reinforced by displays of posters and provision or hand washing facilities, tissues, and waste bins.

Special settings: Accident and emergency/MAAU

Emergency practitioners will be required to:

- Rapidly screen and identify persons who have symptoms of pandemic influenza on arrival
- Separate symptomatic patients from others to reduce the risk of disease transmission
- Determine as early as possible the type of care patients will require (i.e. “see and discharge” or admit for treatment).

Screening and triage

Signage should be displayed prior to and on entry to the Hospital and A&E Department instructing patients with respiratory symptoms to inform the reception immediately on their arrival.

- A triage practitioner should be based in the reception for managing patient flow, including deferral of patients who do not require emergency care.
- Patients calling for medical appointments for pandemic influenza should be discouraged from making unnecessary visits to clinical facilities.

Reception area/layout

- Patients with symptoms of pandemic influenza should be triaged to a segregated waiting and assessment area immediately. Patients should be instructed to stay in this waiting area and not wander around the department, hospital, or go the public cafeteria.
- All non-essential soft furnishings and items such as books and magazines and toys should be removed from this area.
- Patients who do not have symptoms of pandemic influenza but require acute care assessment promptly should be triaged to a different specific waiting and examining area, physically separate from the influenza waiting and assessment area.

In the hospital setting the incident management team will include action plans for patient segregation: use in conjunction with separate incident plan.
Influenza pandemic

<table>
<thead>
<tr>
<th>Special settings: paediatrics</th>
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<tbody>
<tr>
<td>Childrens ward</td>
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</table>

Children’s wards present special challenges due to the difficulties experienced with younger children adhering to respiratory hygiene. In addition, children usually shed virus longer than most adults and in some settings shedding may be prolonged for weeks.

**Patient placement**

The following points need to be taken into consideration when cohorting children:

- Different age groups (e.g. infants, toddlers, adolescents)
- Routine childhood vaccination status of children
- Presence of immunocompromising conditions
- Co-infection with another pathogen (e.g. RSV); such children may be cohorted separately. However, this will be dependent upon the availability of rooms, staff and the number of patients who are infected with both influenza and another pathogen requiring isolation.

If the ward does not have enough side rooms, the main unit should be divided into two separate areas for care of patients with and without pandemic influenza. Whenever possible, staff teams should be dedicated to one area.
Influenza pandemic

Special settings: ICU

Unit layout/patient placement
If the unit does not have side rooms, the main unit should be divided into two separate areas for care of patients with and without pandemic influenza. Whenever possible, staff teams should be dedicated to one area.

Respiratory care issues

Respiratory equipment – recommendations:

- Disposable patient respiratory equipment must be used wherever possible. Reusable equipment must be decontaminated after use in accordance with normal policy and manufacturers guidelines.
- Closed systems should be used wherever possible (e.g. suction, closed nebuliser delivery).
- All respiratory equipment used on patients must be protected with a filter.
- The ventilatory circuit should not be broken unless absolutely necessary The use of open non-invasive positive pressure ventilation equipment should be avoided.

Respiratory and aerosol generating procedures
See part 1 page 17.11 for guidance on PPE for aerosol generating procedures.

- Only essential staff should be in a patient’s room when airway management, cough inducing activities or nebulisation of drugs is being carried out.
- Appropriate PPE must be worn when giving respiratory tract care, especially during aerosol generating procedures involving airway management (see ‘use of respirator masks’).
Influenza pandemic

Signage should be displayed informing visitors of the ward’s current segregated status and procedures that need to be undertaken prior to entering the ward.

Visitors must report to the isolation area reception.

Access of non-essential staff or persons should be restricted.

Access to isolation areas

Visitors

During a pandemic, visitors to all areas of the hospital should be kept to a minimum.

- On arrival to influenza segregated wards, all visitors should report to the ward reception.
- Visitors entering a cohorted area must be instructed on hand hygiene practice and the wearing of protective clothing as appropriate.

The use of family members and volunteers to assist in patient care during a pandemic may be considered if staff shortages are extreme.

When visitors become carers they will need to be instructed on the use of PPE.

Others

Estates staff & Works department technicians:

- Should not be allowed entry into influenza segregated areas unless undertaking essential maintenance work. If this is necessary, PPE must be worn as for healthcare workers.

Medical sales representatives

- Should not be allowed entry into influenza segregated areas including patient waiting or reception areas designated for patients with symptoms of pandemic influenza.

Ministers of religion

- Should be instructed to wear PPE as per Standard Infection Control Principles and Droplet Precautions (see summary page 17.24 and next page).

Cleanliness staff

See page 17.31.
### Influenza pandemic

#### The dying deceased patient

**Ministers of religion**

Ministers of religion should be instructed to wear PPE as per Standard Infection Control Principles and should wear a surgical mask when in isolation care areas.

**Death of patient**

- When performing last offices for deceased patients, follow Standard precautions, using appropriate PPE for the task.
- A body bag is not necessary where flu has been implicated in the death, unless it is thought likely that there would be leakage in transit.
- Transfer to the mortuary should occur as soon as possible after death in the normal way.
- If the family wishes to view the body, they may be allowed to do so and instructed to wear PPE as per Standard Infection Control precautions.

**Post mortem examinations**

During a pandemic, questions may arise about the need for post-mortem examinations. Where clinically indicated, such exams will yield vital clinico-pathological information, which may be of vital importance in refining recommendations related to prevention and treatment of infection.

- The post-mortem should be conducted in a high-risk post-mortem room, FFP3 respirator mask or a powered respirator and full PPE should be worn – see also ‘aerosol generating procedures’.
- Pathologists should seek advice from Consultant Medical Microbiologist or deputy before the PM.

**Mortuary and funeral staff**

- The mortuary staff or funeral director should be informed that the deceased had pandemic influenza. A guidance leaflet on pandemic flu for funeral directors is available on the HPA website.
- Standard Infection Control Principles should be followed; there is no further risk of droplet spread.
Influenza pandemic

See also part 1 pages 17.14 - 17.15.

Occupational Health and staff deployment

See also part 1 (pages 17.14 - 17.15).

KEY POINTS

- Prompt recognition of healthcare workers with influenza is essential to limit spread.

- Healthcare workers with symptoms of influenza should be excluded from work in a pandemic situation; exceptions may be necessary.

- As a general principle, healthcare workers who care for pandemic influenza patient areas should not care for other patients; exceptions may be necessary.

- Healthcare workers at high-risk for complications from pandemic influenza or who are pregnant should not provide direct patient care in isolation care areas and should seek advice from Occupational Health.

- Bank and agency staff should follow the same deployment advice as permanent staff.

Healthcare staff with symptoms of influenza should not come to work; they should seek advice as recommended and inform Occupational Health.

Healthcare staff who have had pandemic flu and who have recovered should inform Occupational Health.

Responsibilities

Healthcare staff have a responsibility to comply with PCT policies for prevention and control of infection; those who provide direct patient care must ensure they are up to date with pandemic flu guidance and correct use of PPE.

Healthcare staff who may perform aerosol-generating procedures must ensure they are trained in and fit tested for use of FFP3 respirator masks.
References and links


2. Department of Health: swine flu guidance and resources at: 

3. Pandemic flu: a national framework for responding to an influenza pandemic; Department of Health November 2007. Available at: 

4. Revised avian influenza guidance and algorithms. (WHO pandemic alert phase 3). 