

Livewell Southwest

**Guidance for the management of patients  
with suspected or confirmed respiratory  
virus infections (Influenza, MERS, SARS)**

Version No. 2

Review: May 2019

**Notice to staff using a paper copy of this guidance**

**The policies and procedures page of Intranet holds the most recent version of this guidance. Staff must ensure they are using the most recent guidance.**

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## Reader Information

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### Document review history

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2	Reviewed	April 2016	Infection Prevention and Control Manager	Merging the Avian Influenza (Management of) Guidelines with this policy to make it easier for staff to read. We have added an influenza outbreak flow chart as a guide. All changes are highlighted in yellow

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# Guidance for the management of patients with suspected or confirmed respiratory virus infections (Influenza, MERS, SARS)

## 1. Purpose

1.1 This policy aims to:

- Ensure that patients with influenza receive effective and appropriate care.
- Minimise the risk of transmission of influenza to patients, staff and visitors.

## 2. Duties

- 2.1 The **Chief Executive** is ultimately responsible for infection prevention and control and the content of all Policies and their implementation. The Chief Executive delegates the day to day responsibility of implementation of the policies to the **Director of Infection Prevention and Control (DIPC)** and the Infection Prevention and Control team (IPCT).
- 2.2 **Directors** are responsible for identifying, producing and implementing Livewell SouthWest (LSW) Policies relevant to their area.
- 2.3 The **Locality Managers** will support and enable operational Clinical Leads and Managers to fulfil their responsibilities and ensure the effective implementation of this Policy within their speciality.
- 2.4 The **Modern Matron/Clinical Lead** is responsible for ensuring that the development of local procedures / documentation doesn't duplicate work and that implementation is achievable.
- 2.5 **All staff, both clinical and non-clinical** have a responsibility for ensuring they have read, understood and adhere to local Protocols and Policies.
- 2.6 **Infection Prevention and Control Team** are responsible for ensuring that latest guidance is available and included in training programmes/audits.
- 2.7 **Ward managers/team leaders** are responsible for ensuring that good practice is embedded into their clinical areas.

## 3 Severe Acute Respiratory Infections

- 3.1 Severe Acute Respiratory Syndrome (SARS) is a syndrome caused by infection with novel coronaviruses. Disease activity is variable and there are long periods, globally, of no reports, however, the possibility of SARS should be considered in patients admitted with a severe unexplained respiratory illness with a history of

recent travel to an area classified by WHO as having recent local transmission (see <http://www.who.int/csr/sars/en/index.html>).

- 3.2 Public Health England will update their guidance as needed when SARS is likely to affect the UK. MERS-CoV (Middle East Respiratory Syndrome Coronavirus) is one of the conditions that falls into this syndrome of severe respiratory illnesses.

## **4 Influenza: Management and Guidance**

- 4.1 The Infection Prevention and Control Team (IPCT) should be informed immediately of all cases of suspected influenza (in patient areas).
- 4.2 Patients with influenza should be nursed in a single room or cohorted for the same viral infection.
- 4.3 It is well established that influenza is known to be transmitted from person-to-person through close contact. The most important routes of transmission are by large droplet and direct and indirect contact. Airborne, or fine droplet transmission, may also occur.
- 4.4 Standard Infection Control Principles and Droplet Precautions are the principal infection control strategies. Scrupulous attention to hand washing and containment of respiratory secretions produced by coughing and sneezing are the important for effective infection control.
- 4.5 These control measures need to be augmented with higher levels of respiratory protection. High-efficiency FFP3 Respirator Masks conforming to EN149:2001 should be worn by members of staff when caring for patients with influenza. Eye protection should also be worn for aerosol generating procedures.
- 4.6 An annual programme of immunisation is available for staff against seasonal influenza using a vaccine containing the currently circulating viral strain(s).
- 4.7 Antiviral agents are available and may be appropriate for use in the prophylaxis of staff contacts or treatment of patients. These agents should be used after consultation with a medical microbiologist.
- 4.8 In some cases the patient may need to be nursed in a negative pressure room, Livewell Southwest does not have any of these rooms, discuss with Microbiologist.
- 4.9 **Influenza**
  - a) Influenza is a communicable disease with the potential for transmission in hospital. The need for procedures to recognise, and prevent hospital-based transmission is emphasised by certain vulnerable patient groups for whom influenza is particularly dangerous.

- b) Vulnerable patient groups are also present within community settings i.e. care homes and within households that community staff visits so it is of equal importance that all staff are aware of the potential for cross transmission.
- c) Influenza is due to infection with a respiratory virus that is transmitted from person-to-person through close contact. The most important routes of transmission are by large droplet and direct and indirect contact. Airborne, or fine droplet transmission, may also occur, particularly during aerosol-generating procedures.

4.10 There are three main clinical forms of influenza:-

#### 4.10.1 Avian influenza

Avian influenza is a disease of birds caused by type A influenza viruses closely related to human influenza viruses. It often causes little or no disease in wild waterfowl but can cause large outbreaks associated with high mortality in poultry. Transmission to humans in close contact with poultry or other birds occurs rarely and only with certain strains. However, large epidemics in birds increase chances for genetic exchange and opportunities to infect humans. The acquisition of human genes during such outbreaks increases the likelihood of the virus crossing species barrier and human-to-human transmission. The potential for transformation of avian influenza into a form that both causes severe disease in humans and spreads easily from person to person is a great concern for world health and would provide conditions for the start of a pandemic. Avian influenza viruses are frequently highly pathogenic in humans and cause severe respiratory disease with high mortality, particularly in children.

4.10.2 Possible avian influenza may be considered when there is relevant travel and contact history. Guidance is available at:  
<https://www.gov.uk/government/collections/avian-influenza-guidance-data-and-analysis>

4.10.3 As soon as the diagnosis of avian influenza is suspected, a Consultant Microbiologist and the Infection Prevention and Control Team (IPCT) should be informed.

4.10.4 Transmission of avian influenza almost certainly occurs through multiple routes including large droplets and direct and indirect contact. Airborne or fine droplet transmission may also occur in certain situations.

4.10.5 Patients should be admitted directly into a negative-pressure single room.

#### 4.10.6 Clinical presentation

The exact clinical presentation in avian influenza is still unclear. The median incubation period is around 3 days (range 2 – 4 days) and the median time to

death after onset of symptoms is around 13 days. The main clinical features that have been reported are listed below:

- Fever.
- Cough.
- Sore throat.
- Rhinorrhoea
- Myalgia.
- Conjunctivitis.
- Watery diarrhoea.
- Severe unexplained respiratory illness

**If there is no fever, it is highly unlikely that avian influenza infection has occurred.**

#### 4.10.7 Case definition for suspected avian influenza

Please note that if epidemiological criteria are definitely fulfilled and patient is severely unwell but with no respiratory symptoms the case should **still** be discussed with a Consultant Microbiologist and the IPCT.

##### 1. Clinical presentation

Fever ( $\geq 38^{\circ}\text{C}$ ) **OR** history of fever **AND** respiratory symptoms (cough or shortness of breath) requiring hospitalisation.

**OR**

Death from unexplained respiratory illness.

**AND**

##### 2. Epidemiological criteria

History of travel in the **7 days prior to onset of symptoms** to an area affected by avian influenza A **AND** close contact (within 1 metre) with live or dead domestic fowl, wild birds, or swine in any setting, including bird markets.

**OR** one of the following:

- Close contact (touching/speaking distance) with other case(s) of severe respiratory illness or unexplained death from above areas.
- Part of a Health Care Worker cluster of severe unexplained respiratory illness.
- A Laboratory worker with potential exposure to avian influenza A .

Guidance is available at:

<https://www.guidelines.co.uk/phe/avian-influenza>

#### 4.10.8 Baseline investigations

The following baseline tests should be performed, as they help in the risk assessment of the case:

- Chest X-ray.
- A full blood count with differential (for lymphopenia).
- Liver function tests.

**Based on published data, these are highly likely to be abnormal in cases of avian influenza. If laboratory tests and Chest X-ray are normal, this is unlikely to be avian influenza.**

#### Diagnostic investigations For Avian Influenza

A Consultant Microbiologist, along with the local Consultant in Communicable Disease Control (CCDC) at Public Health England (PHE) , will assist in the clinical risk assessment, based on the presence of an appropriate travel and contact history, the probability of infection (a weighting given to clinical presentation and baseline investigations), and will coordinate optimal transportation, handling and processing of diagnostic specimens. Where appropriate, the Microbiology laboratory will undertake initial tests for influenza and other respiratory pathogens in suspect avian influenza cases, with due consideration to biosafety. If influenza A is detected, and it is considered that avian influenza is a serious consideration, specimens can be referred for specialist testing.

All samples should have all patient and clinical details completed, be labelled with a 'Danger of Infection' sticker and be double-bagged. The World Health Organisation (WHO) recommends that specimens from such cases are handled using biosafety level 2 standards and biosafety level 3 work practices. Since virus shedding is primarily in the respiratory tract, and there is no evidence of viraemia or shedding in other body fluids, there is no need for specialist handling of specimens for biochemical or haematological tests.

The optimal samples required for the confirmation of infection are a **nasopharyngeal aspirate** or a nasal and **throat swab taken using virology swabs**. Specimens should be taken by a member of staff wearing appropriate protective personal equipment (please see Appendix A for guidance). Other suitable samples include a bronchoalveolar lavage and a well-taken sputum. Acute and convalescent **serum** samples should also be sent (20 mls clotted blood).

If the travel history includes a geographical area where SARS could re-emerge, samples should also include EDTA blood, stool and urine samples in the acute stage.

## 4.11 Seasonal influenza

Seasonal influenza occurs on an annual basis and is particularly common during winter. Every year human strains of influenza (type A or B) circulate, giving rise to clinical cases which may require hospital admission (mainly in older persons and young children, but occasionally in working age adults), and deaths (mainly in the elderly). Treatment may be required due to the direct effects of influenza virus infection or its possible complications, most commonly secondary bacterial pneumonia. Certain patient groups are particularly vulnerable to influenza including the elderly (over 65 years), those with chronic respiratory disease (including asthma), chronic heart disease, chronic renal disease, chronic neurological disease, diabetes and immunosuppression, and those in long-stay residential and nursing homes.

## 4.12 Pandemic influenza

Pandemic influenza occurs when a new influenza A virus subtype emerges which is markedly different from recently circulating subtypes and strains, and is able to:

1. Infect humans.
2. Spread efficiently from person to person.
3. Cause significant clinical illness in a high proportion of those infected.

Because the virus is novel in humans, a high proportion of the population will have little or no immunity, producing a large pool of susceptible persons, allowing the disease to spread widely and rapidly. The circumstances still exist for a new influenza virus with pandemic potential to emerge and spread. Although recent outbreaks of avian influenza associated with epizootic transmission to humans have not been associated with human-to-human transmission, there is concern that an strain of influenza may emerge and produce the next pandemic. Please see **Contingency Plan for the Protection of Staff and Essential Patient Services During an Influenza Pandemic**.

**Other viral respiratory illnesses include Respiratory Syncytial virus which commonly affects babies and children, Parainfluenza which has four main strains which again is more common in children, rhinoviruses which cause the common cold. If these infections are suspected good respiratory etiquette is essential and advice sought according to individual patient risks and needs.**

## 5. Patient assessment

### 5.1 Clinical presentation

- The early identification of patients with influenza is important in controlling hospital-based transmission. As soon as the diagnosis of influenza is suspected, a Consultant Microbiologist and the IPCT should be informed. Obtain the Respiratory Outbreak Box (ROB) from the location nearest to you (See appendix H) and follow the PPE guidelines (See appendix H).(for access to the PPE

stores contact the IPCT or site assistants)

### 5.1.1 Clinical features of influenza include:

- Fever, dry cough and abrupt onset.
- Headache, sore throat, runny or stuffy nose, aching muscles and joints, and extreme tiredness.

Infectious period from onset of symptoms

Influenza	1-4 days
parainfluenza	2-6 days
Respiratory syncytial viruses	3-7 days
rhinoviruses	2-4 days
Pneumococcal infection Bacterial	1-3 days
Pertussis (whooping cough) Bacterial	5-21 days

Immunocompromised individuals and seriously ill people may remain infectious for 7 or more days, and young children can shed virus for several days before their illness onset. Patients with whooping cough may be infectious until 3 weeks after the onset of the paroxysmal phase of the disease

- a) The most common complications of influenza are bronchitis and secondary bacterial pneumonia.
- b) The doctor looking after a patient with suspected influenza must undertake an assessment of the risk of transmission to others as soon as the diagnosis is suspected. This assessment is usually performed in consultation with a Consultant in Microbiology or the IPCT.

## 5.2 Diagnostic investigations for Influenza other than Avian (please see page 9 for Avian flu diagnostic investigations)

Accurate diagnosis and assessment of the risk of transmission are essential to the management and control of influenza. Other than during an established pandemic, laboratory confirmation of the diagnosis of influenza should be obtained. Diagnosis of influenza can only be confirmed by laboratory testing, although the probability that an influenza-like illness is caused by influenza is higher if influenza is known to be circulating and if a person has a high fever. The symptoms of influenza-like illness can be different in infants and children and may include fatigue, irritability, diarrhoea and vomiting. Influenza infection is usually self-limiting and lasts for 3–4 days, with some symptoms persisting for 1–2 weeks.

- ### 5.2.1
- The optimal samples required for the confirmation of infection are a **nasopharyngeal aspirate** or a **throat swab taken using a virology swab** broken off into a sterile universal container. Other suitable samples include a bronchoalveolar lavage and a well-taken sputum. Acute and convalescent **serum** samples may also be sent (20 ml clotted blood). Samples should be

taken, using appropriate Respiratory Personal Protective Equipment (RPPE). If there are no virology swabs available an E swab can be used, but a virology swab is preferred.

### **5.3 Treatment and prophylaxis**

5.3.1 Antiviral agents may be appropriate for patient treatment and the prophylaxis of contacts of infected patients in order to reduce infectiousness and the duration of illness. These agents should be used after consultation with Microbiology.

For the treatment of adults, antivirals should be considered if **all** of the following are present:

5.3.2 Acute influenza-like illness.

Fever >38°C.

Symptoms for less than 2 days. There may be clinical benefit in using antivirals for patients who have been symptomatic for longer than 48 hours. If in doubt, please discuss with a Medical Microbiologist.

5.3.3 The treatment of influenza should be under the supervision of a Consultant Physician and children should be managed by a Consultant Paediatrician.

Antiviral medication

In 2009, the National Institute for Health and Care Excellence (NICE) recommended that doctors should consider treating people in the at-risk groups mentioned above with the antiviral medications oseltamivir (Tamiflu) or zanamivir (Relenza) to reduce the risk of complications of influenza.

Antivirals work by stopping the influenza virus from multiplying in the body. They won't cure influenza, but they may help slightly reduce the length of the illness and relieve some of the symptoms. There is evidence that antivirals can reduce the risk of death in patients hospitalised with influenza. In the light of this evidence, Public Health England says it is important that doctors treating severely unwell patients continue to prescribe these drugs where appropriate

5.3.4 A risk assessment should be performed in collaboration with the IPCT or Consultant Microbiologist when considering antiviral prophylaxis for staff caring for cases of suspected influenza. As a general rule, the following will be considered as a significant exposure:

- Direct face-to-face contact.
- Contact within the same room or bay for more than 15 minutes.

5.3.5 An annual programme of immunization is available for staff against seasonal influenza using a vaccine containing the currently circulating viral strain(s). During a pandemic, mass vaccination of patients and staff may be appropriate and will be coordinated by the LSW Pandemic Influenza Planning Group.

## **6. Isolation and infection control procedures**

### **6.1 General**

- a) The human influenza virus is transmitted from person-to-person through close contact with a coughing, sneezing infected person. Transmission almost certainly occurs through multiple routes including large droplets and direct and indirect contact. Airborne or fine droplet transmission may also occur in certain situations. Influenza can be transferred from surfaces such as glass or plastic to hands up to 24 hours and up to 2 hours from materials such as pyjamas, magazines and tissues.
- b) Control of influenza depends on reducing transmission of infection from infectious individuals to others by:
- Strict adherence to infection control practices especially hand hygiene, containment of respiratory secretions and the use personal protective equipment.
  - Adherence to Standard Infection Control Principles and Droplet Precautions.
  - Administrative controls e.g., separation or cohorting of patients with influenza.
  - Restriction of symptomatic workers and visitors.
  - Education of staff, patients and visitors.

Community staff should visit only if necessary i.e. care homes and patients in their own homes.

## 6.2 Hand hygiene

- a) All staff, including community staff) should be familiar with LSW policy on hand decontamination as described in the **Hand Hygiene Policy**. Prevention of transmission is based on rigorous hand hygiene before and after contact with patients and their potentially contaminated environments. Rings, wrist watches and wrist jewellery should be removed. Hands should be washed with soap and water at the start and end of clinical duties, when hands are visibly soiled or potentially contaminated and following the removal of gloves. Hands should be decontaminated after contact with the bed area of an infected patient, removal of protective clothing, and cleaning of equipment.
- b) All staff, patients and visitors entering and leaving areas where care is delivered should perform hand hygiene with either soap and water followed by drying, or alcohol hand rub, only use alcohol rub if your hands are visibly clean.

## 6.3 Isolation

- a) Patients with suspected or confirmed influenza requiring admission to hospital should be nursed in a single room, preferably under negative pressure. During a large epidemic or pandemic, patients should be cohort-nursed in the same area and separated from non-infected patients.
- b) The patient must remain in the room with the door closed throughout the period while they are infectious and should not enter communal areas except for compelling clinical reasons (e.g. important imaging techniques). They should be

transported directly from their isolation room to the Department they are visiting and not left in corridors or seated areas such as patient waiting areas. In transit the patient should wear a fluid-repellent surgical mask. The surgical mask acts as a physical barrier if the patient is compelled to cough whilst outside of isolation. In all cases the patient should be encouraged to cough into a tissue, which must be discarded as clinical waste.

- c) Appropriate isolation for confirmed cases of avian influenza should be maintained for 7 days after illness onset in adults over 12 years of age. Children less than 12 years of age should remain in isolation for 21 days after the onset of illness. Discontinuation of isolation in confirmed cases should be discussed with a Microbiologist or the IPCT.

## 6.4 Personal protective equipment for staff

### 6.4.1 Personal Protective Equipment

- Gowns should:
  - Fully cover the area to be protected.
  - Be worn only once and then placed in a receptacle as appropriate, and hand hygiene performed immediately after removal.
  - Eye protection should always be worn during aerosol-generating procedures.
  - Eye protection can be achieved by the use of any one of the following:
    - Full face visors.
    - Disposable eye protection.

### 6.4.2 Removal of PPE (see training on staff intranet)

- a) PPE must be removed in the correct order:
- Remove gown and gloves inside the isolation room (please see training video on how to remove PPE correctly)
  - **Perform Hand Hygiene**
  - Leave the room
  - Remove eye protection or face shield
  - Remove mask - **by grasping elastic behind ears – do not touch front of mask.**
  - **Wash hands again**

Below is a chart indicating what type of PPE is required for staff caring for patients with some of the most common infections that are either suspected or confirmed

	Apron	Looped Apron	Gloves	Face Mask	Face shield	Eye Protection	Hand Hygiene
Influenza		✓	✓	✓	✓	✓	✓
TB		✓	✓	✓	✓	✓	✓
Ebola/VHF HH Liquid soap and running water		✓	✓	✓	✓	✓	✓
C Diff HH Liquid soap and running water	✓		✓				✓
MRSA	✓		✓			✓	✓
VRE/GRE	✓		✓				✓
CPE HH Liquid soap and running water		✓	✓				✓
Personal Care	✓		✓				✓
Risk of Bodily Fluids HH Liquid soap and running water	✓	✓	✓			✓	✓
Risk of Splashes	✓	✓	✓		✓		✓
Diarrhoea and Vomiting HH Liquid soap and running water	✓		✓				✓
Scabies	✓		✓				✓
Ecol/ESBL	✓		✓				✓
PVL	✓		✓				✓

## 6.5 FFP3 respirator masks

- a) A FFP3 filtering disposable respirator mask conforming to EN149:2001 should be worn by members of staff in the following circumstances :
  - By all persons present in the room during bronchoscopy and cough-inducing or aerosol-generating procedures. These include intubation, nasopharyngeal aspiration, tracheostomy care, chest physiotherapy, bronchoscopy, nebuliser therapy and autopsy of lung tissue. The performance of aerosol-generating procedures should be minimized as is feasible without compromising patient care. To avoid unnecessary exposures, only those health care workers needed to perform the procedure should be present. In addition to respirators, eye protection must be worn to prevent eye contact with infectious material during such procedures.
- b) If breathing becomes difficult, the respirator becomes damaged or distorted or contaminated by body fluids, or if a proper face fit cannot be maintained, the wearer should go to a safe area and change the respirator immediately. FFP3 respirators should be replaced after each use. If, during the process of providing care, respirators become contaminated with a patient's respiratory secretions they should be disposed of immediately. Respirators should be disposed of as clinical waste.

### 6.5.1 Respiratory mask fitting

Respirator Masks will only offer protection if fitted correctly and COSHH (Care of Substances Hazardous to Health) 2002 details the requirement for fit testing and supplies guidance as to how to carry this out. Individual members of staff must ensure they have received the correct FFP3 training before using these masks.

Training must be sought from their line manager. All staff will attend three yearly qualitative essential mask fit training. Unless they have any facial changes (weight loss, dental work, etc.). In these circumstances, mask fit training will need to be carried out again immediately.

## **6.6 Discontinuation of isolation**

- 6.6.1 Appropriate isolation should be maintained for 5 days after illness onset. Children should remain in isolation for 7 days after the onset of illness. Discontinuation of isolation should be discussed with a Consultant Microbiologist or the IPCT.

## **6.7 Patient equipment**

- 6.7.1 All clinical equipment must be cleaned according to manufacturer's recommendations and in line with the **Decontamination Guidelines and Procedures. (Cleaning and Disinfection)**. Freshly prepared neutral detergent and hot water should be used.
- 6.7.2 There are no special procedures required for transporting used equipment to Sterilisation and Disinfection Unit (SDU) and local policies should be followed.
- 6.7.3 Ventilators should be protected with filters and standard decontamination procedures followed. Closed system suction should be used.
- 6.7.4 Crockery and cutlery should be treated as normal and washed in a dishwasher.
- 6.7.5 Use of equipment that re-circulates air (e.g. fans, hot air warming blankets) should be avoided. If used, they should be decontaminated in accordance with manufacturers' instructions and any filters changed. Staff changing filters must be instructed in safe working practices.

## **6.8 Linen/laundry**

- 6.8.1 Linen used during the patient's care should be managed safely as per Standard Infection Control principles and categorised as "Used" or "Infected" per the NHS Executive Guidance (1995) on Hospital Laundry Arrangements for Used and Infected Linen. Both Gloves and aprons should be worn for handling all contaminated linen.
- 6.8.2 PPE must be worn when handling infected linen and hand decontamination performed after removal of gloves.

## **6.9 Waste**

- 6.9.1 No additional handling procedures are recommended for clinical and non-clinical waste that may be contaminated with influenza virus and all waste should be handled and disposed of as clinical waste as per local policy. All waste collection bags should be tied and sealed before removal from the patient area. Gloves and disposable plastic aprons should be worn when handling all waste and hand decontamination performed after removal of gloves.

6.9.2 Liquid waste such as urine and faeces can be safely disposed of into the sewerage system.

## 6.10 Cleaning

6.10.1 Environmental soiling, for instance with pus or sputum, must be cleaned up promptly by a member of staff wearing suitable personal protective equipment and the area cleaned with hypochlorite solution (1000ppm available chlorine).

6.10.2 Routine environmental cleaning should adhere to basic hygiene standards and are as set out in the policy **Isolation & the Infected Patient** and the **Decontamination (cleaning & disinfection guidelines & procedures)**. Patient areas should be cleaned daily at a minimum, as well as after patient discharge. Clinical rooms (e.g. treatment rooms) should be cleaned daily and after use by patients with influenza. Frequently touched surfaces (e.g. door knobs) should be cleaned more frequently and when known to be contaminated with secretions, excretions or body fluids. Freshly prepared neutral detergent and hot water should be used. More frequent cleaning will also be necessary in cohort areas or during a pandemic.

## 7. Management of the coughing and sneezing patient

7.1 Patients, as well as staff, and visitors, should be encouraged to minimize potential influenza transmission through good hygienic measures as follows:

- 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.
- 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.
- 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 surgical masks to assist in the containment of respiratory secretions and to reduce environmental contamination.

## 8. Staff and visitors

8.1 Prompt recognition of healthcare workers with influenza is essential to limit transmission and is particularly important during a pandemic. Healthcare workers with influenza should be excluded from work. Staff who have symptoms of influenza, including those who are beginning to experience symptoms or are recovering from influenza, should not work, so as to avoid infecting patients,

colleagues and others. This is particularly important for staff working with patients at high-risk for complications from influenza.

- The number of visitors should be restricted and in some circumstances it may be preferable to exclude
- Close contacts of a probable or confirmed influenza patient should be screened for signs and symptoms.
- Visitors entering the isolation room must wear PPE
- Visitors should be trained in the appropriate use of PPE.
- A log of all visitors should be kept (see Appendix E).
- Appropriate information should be given to family or other contact of patients with influenza (see Appendix F and patient information leaflet).

8.2 As a general principle, healthcare workers who care for influenza patients should not care for other patients, although again exceptions may be necessary. Healthcare workers at high-risk for complications from influenza, such as those with chronic respiratory disease (including asthma), chronic heart disease, chronic renal disease, chronic neurological disease, diabetes, immunosuppression or who are pregnant, should not provide direct care to patients known to have influenza. Bank and agency staff should follow the same deployment advice as permanent staff. In a pandemic, staff should be segregated into those dealing with influenza patients and those not.

## **9. Transfer of patients**

9.1 Ambulance staff and staff of the receiving hospital should be made aware of the diagnosis in order to ensure continuity of infection control precautions. Standard Infection Control Principles and Droplet Precautions, as outlined above, are applicable in most circumstances. Symptomatic patients should be encouraged to wear a surgical mask to assist in the containment of respiratory secretions and reduce environmental contamination of the ambulance. Crew members should wear high-efficiency FFP3 respirator masks and eye protection if critically ill patients require aerosol-generating procedures (e.g. intubation, nasopharyngeal aspiration).

9.2 The immediate environment (i.e. trolley and patient equipment) must be decontaminated between patients. Upon completion of transfer of patients with influenza the vehicle must be thoroughly cleaned and decontaminated using detergent and hot water before further use. All disposable materials must be disposed of as clinical waste. Waste bags must be sealed, labelled and sent for incineration.

## **10. Care of the deceased with Avian influenza**

### **10.1 Last offices**

- Health care workers must follow standard precautions when caring for the deceased patient.

- Full PPE must be worn if the patient died during the infectious period (i.e. 7 days after the onset of symptoms in adults and 21 days after the onset of symptoms in children).
- The body should be fully sealed in an impermeable body bag prior to transfer to the mortuary.
- No leaking of body fluids should occur and the outside bag should be clean
- Transfer to the mortuary should occur as soon as possible after death.
- If family members of the patient wish to view the body, they may be allowed to do so. If the patient died in the infectious period the family should wear gloves and a gown.
- Mortuary staff and funeral directors must be advised of the biohazard risk.

## **10.2 Post mortem examination**

A post mortem examination of someone who had or probably had avian influenza should be performed with caution if the patient has died during the infectious period. If the patient is still shedding virus when he or she dies the lungs may still contain the virus. Therefore when any procedure is performed on the cadaver's lung, full PPE should be worn including high-efficiency FFP3 mask, gloves, gown and goggles.

## **10.3 Minimizing the risk from an infected cadaver**

Prevent the production of aerosols – especially when excising the lung, by:

- Avoiding the use of power saws.
- Conducting procedures under water if there is a chance of aerosolation.
- Avoiding splashing when removing lung tissue.

As a general guide follow standard precautions and:

- Use the minimal amount of equipment in the autopsy.
- Avoid using scalpels and scissors with pointed ends.
- Never pass instruments and equipment by hand – always use a tray.
- If possible use disposable instruments and equipment.
- Keep the number of staff present to a minimum.

## **10.4. Mortuary care/funeral director's premises**

- Staff of the mortuary or funeral home should be informed that the deceased had avian influenza. It should be explained that standard precautions are all that is required in the event of exposure to the body.
- Embalming may be conducted as routine.
- Hygienic preparation of the deceased (e.g. cleaning, tidying of hair, trimming of nails, and shaving) may also be conducted.

## 10.5 Supplemental guidance for Pandemic Influenza Infection Control

10.5.1 Planning for the exceptional infection control and operational measures required during a pandemic is undertaken by LivewellSouthWest Pandemic Influenza Planning Group. During a pandemic this group would also be responsible for implementation of formulated guidance outlined in the **Contingency Plan for the Protection of Staff and Essential Patient Services During an Influenza Pandemic**.

## 10.6 Monitoring Compliance and Effectiveness

10.6.1 Compliance with this policy will be monitored by the IPCT in their audit cycle which has been agreed by the Infection Control Committee for Livewell SouthWest.

- The infection prevention and control team produce an annual audit plan for the provider services at Livewell SouthWest.
- It is the responsibility of the IPC Nurse to ensure audits are carried out professionally and any deficits highlighted to the ward manager or the designated manager at the time of the audit. All ward managers, matrons will be sent a report within 48 hours and have a two week period to respond.
- The IPCT will use the Infection Prevention Society, Quality Improvement audit tool for the isolation and safe management of the infected patient.
- The frequency of audit will be annually unless an area fails to meet the standard and requires additional support.
- If the standard fails to be met then the manager will be required to produce an action plan, a subsequent audit will be carried out both by the Infection Prevention and Control team and the manager of the unit within 3 months.

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**All policies are required to be electronically signed by the Lead Director. Proof of the electronic signature is stored in the policies database.**

**The Lead Director approves this document and any attached appendices. For operational policies this will be the Locality Manager.**

**The Executive signature is subject to the understanding that the policy owner has followed the organisation process for policy Ratification.**

Signed:        Lead Nurse, Director of Infection, Prevention and Control

Date:         10<sup>th</sup> May 2016

## Appendix A

### Reference Guide for taking diagnostic samples

The optimal samples required for the confirmation of infection are a **nasopharyngeal aspirate** or **nasal and throat swabs taken using virology swabs** broken off into a viral transport media. Specimens should be taken by a member of staff wearing appropriate protective equipment. **All samples must be agreed in advance with the on-call Microbiologist.** The person taking the swab should wear an FFP3 mask, plastic apron, gloves and visor; they will also require a patient label with details of name/Hospital number, date of birth.

Screening kits can be obtained from the Microbiology Department at Derriford, Level 5. Tel 52386 or out of hours contact the on-call Microbiology Biomedical Scientist.

Patients must wear a surgical face mask when leaving the ward for investigations i.e. chest X ray...

Contents of pack:

- Serology/virology/microbiology request form.
- One swab.
- One tube Viral Transport medium (VTM).
- Sealable plastic bag.

**Taking the screen:**

#### Throat

- Using the swab, vigorously swab only the posterior pharyngeal wall.

#### Nose

- Tilt the patients head back slightly and gently insert the same swab along the medial part of the septum, as far as possible.
- Rotate the swab slightly several times and then remove the swab.
- Insert the swab into the VTM (you will need to break the swab to fit inside the tube).
- Label the VTM tube.
- Check that the viral request form is completed including the contact details for receipt of the results.
- Place the VTM tube containing the two swabs in the plastic bag and seal.
- Remove and appropriately dispose of PPE.
- Decontaminate hands thoroughly.

The specimen should be promptly delivered, to the Microbiology Department

## Appendix B

### Reference Guide for Infection Control Measures for Avian Influenza

Items entering the room or area where patients with avian influenza are present must be cleaned or placed into an appropriate clean container before removal from the environment.

All persons (staff/visitors) should ensure that they clean their hands and remove the outside layer of PPE before exiting the room or area.

1. Patients or groups of patients with avian influenza should be placed in a negative-pressure single room.
2. Only essential staff/visitors should enter the room.
3. All staff/visitors who enter the room should sign a log book.
4. All health care workers (and visitors) must wear PPE when entering the room.
5. The patient must wear a surgical face mask when in contact with staff/visitors.
6. The infection control equipment trolley should remain outside the door.
7. Patients should have clinical equipment (e.g. sphygmomanometer, thermometer) dedicated to their exclusive use
8. Sterile items should be disposable where possible. Reusable items should be placed in a plastic bag and then into another plastic bag inside the equipment collection bin on the trolley. Request the Sterilization and Disinfection Unit to collect.
9. Alcohol-based hand rub should be located in and outside the room.
10. The patient's room must be cleaned each day – including all horizontal surfaces. Curtains should be thoroughly cleaned (by laundering in hot water) at least weekly.
11. Cleaning equipment must be cleaned after each use. Mop heads should be sent for proper laundering in hot water.
12. Pathology specimens must be taken directly to the laboratory. Request form should indicate "highly pathogenic influenza A".
13. Used linen should be placed in a linen bag inside the room and then into another bag outside the room. Take immediately to laundry collection area – treat as per normal infected linen.

14. All waste should be discarded into clinical waste bag inside the room. When waste is to be collected for disposal, place in another bag outside the room and then treat as "normal" clinical/contaminated/infectious waste.
15. A telephone should be set up in the patient's room.



clinical.

Waste – orange bags.

Request twice-daily detergent cleaning to the area and daily detergent cleaning of all the patients' equipment.

Any decision to discontinue isolation should be discussed with the IPCT

## Appendix D

### Responsibilities

#### Hospital Doctor

If influenza is suspected the hospital doctor should:

- Inform IPCT and Consultant Microbiologist.
- Alert laboratory and submit appropriate samples.
- Instigate isolation procedures and ensure all ward staff are aware of the diagnosis and risks.

**Ward Manager/Matron and Registered Manager with the advice from the IPCT will have the final decision on whether the ward will remain open/Closed/under strict observation**

- Ensure local compliance with the Infection Control policies and procedures.
- Inform the IPCT who will assess the risks of transmission in hospital.
- Ensure appropriate PPE is available and that staff are fully trained in its use.
- Provide visitors with information and ensure they are instructed in infection control procedures.

#### Consultant Microbiologist

The Consultant Microbiologist will:

- advise on the investigation, control of infection and clinical management of the case.

#### Infection Prevention and Control Team

When a case of confirmed or suspected influenza is identified the IPCT will:

- Liaise directly with nursing and medical staff caring for the patient and advise on isolation and Infection Control practices.
- If there has been potential for hospital transmission the IPCT will liaise with the Staff Health and Wellbeing Department.

#### Occupational Health and Wellbeing Department

The Occupational Health and Wellbeing Department will:

- Coordinate the follow up of staff contacts of influenza with the advise the IPCT or a Consultant Microbiologist.
- Deliver the annual influenza immunisation programme for staff.

# Appendix E How to respond to an influenza Outbreak

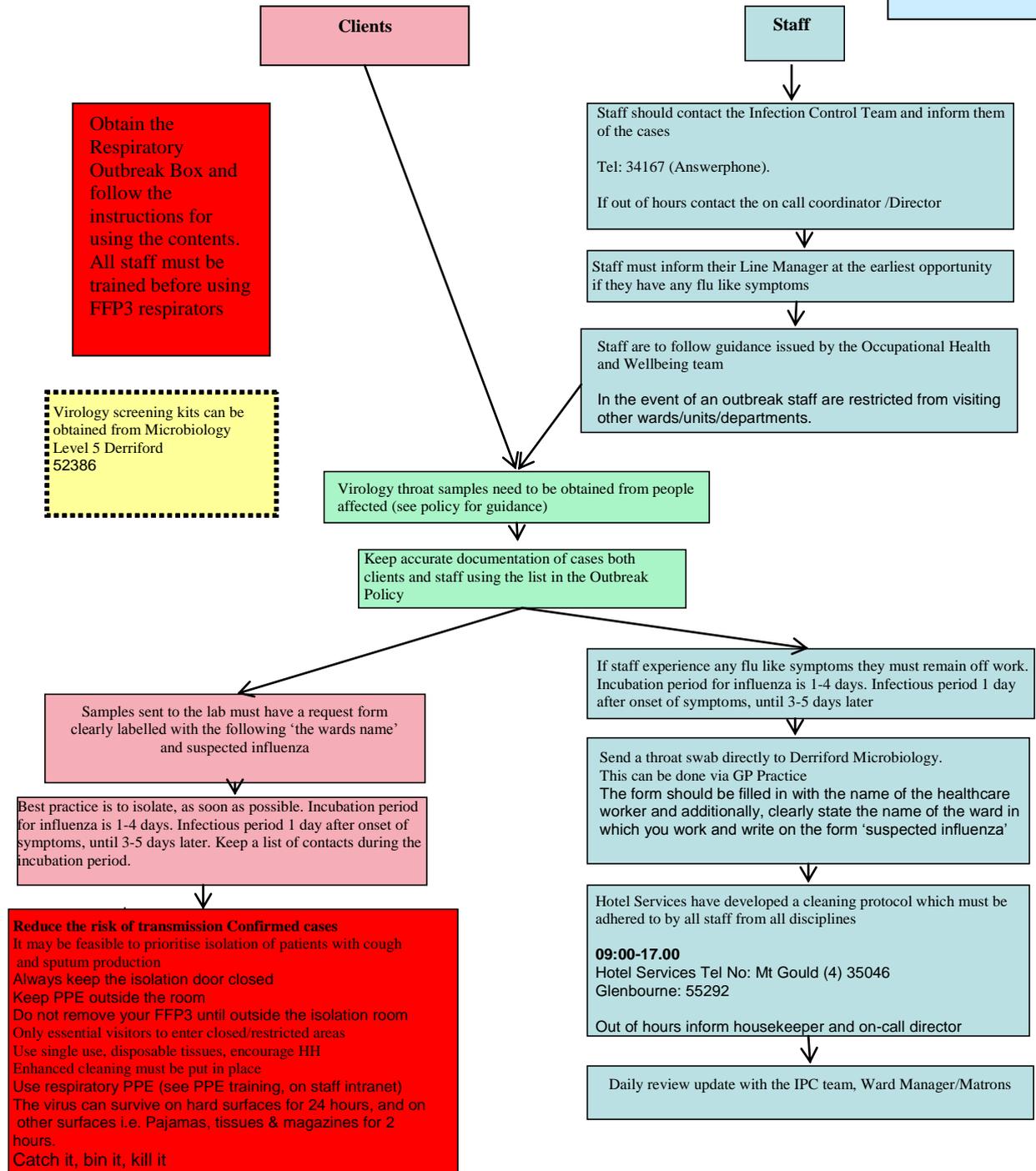
As part of the Infection Prevention and Control Policy, All Services have a duty to respond quickly and effectively

If there are two or more concurrent suspected cases, staff must implement the Infection Prevention Control Outbreak, Policy

**Closure/restriction of wards (2 or more clients with confirmed cases)  
The final decision of ward closure is the responsibility of the ward manager / matron and the registered ward manager, with advice from the IPCT. Out of hours the responsibility of ward closure will be the on-call director.**

**Suspected cases** are those who have signs and symptoms & are awaiting results

**Confirmed cases** are clients who have positive results





## Appendix G

### Advice for Family and other Contacts of Patients with Avian Influenza

- Avoid contact with patients known to have avian influenza during the infectious period of their illness.
- The infectious period is 6 days after the onset of illness in adults and 21 days in children (< 12years old).
- If you must visit a patient who is suspected as having avian influenza or confirmed as having avian influenza – follow the infection control precautions in place in the hospital for the period the patient is infectious.
- You will need to wear personal protective equipment if you have direct contact with the patient or the patients' environment.
- You should receive advice on the proper way to put on the personal protective equipment, especially on how to fit the mask to your face.
- Personal protective equipment you will need to wear includes mask, gown, gloves and goggles.
- When you leave the room you must remove these items and wash your hands very well.
- If you do have contact with the patient during their infectious period of the illness (6 days in adults and 21 days in children) then you should see your doctor for advice about antiviral treatment. You should also monitor your health for 6 days after you have had this contact – watch for increase in your temperature and a sore throat.
- If your illness becomes severe you should seek medical advice immediately and inform them you have been in contact with avian influenza. To avoid potentially infecting others, this would be best done by telephone in the first instance.

## Appendix H

Location
LCC Central Store (Basement)
Trelawney GP Surgery
Ernesettle GP Surgery
Cumberland MIU
Lee Mill (Infection Control Cupboard)
Glenbourne (Hotel Services Manager)
Syrena (Clinic room)
Hotel Services Delivery Store MG
LCC Primary Care Centre
ASR Team MG (Clinic room)
Kingsbridge Hospital
Tavistock Hospital

PPE Video Link

<http://LSWnet.derriford.phnt.swest.nhs.uk/Staff/Training/PPETraining.aspx>