

Guidance - Version 1.1 - 2009.05.19

Managing influenza-like illness (ILI) in nursing and residential homes during the current swine influenza outbreak (WHO Phase 5; UK containment phase)

This guidance aims to provide advice on the generic management of cases or outbreaks of flu-like illness in nursing and residential homes and provides specific guidance appropriate to swine influenza. General information on swine flu can be found on the Health Protection Agency website at www.hpa.org.uk.

Care homes should report any possible swine influenza cases as soon as possible to their local Health Protection Unit Health by their usual local reporting mechanisms.

BACKGROUND

Swine influenza is a respiratory disease normally found in pigs, but human cases can and do happen. It is believed that certain changes have taken place in the swine influenza virus circulating in the Americas which has enabled the virus to infect humans and to spread from person to person, creating the current global situation.

The symptoms of swine flu in people are similar to the symptoms of human seasonal influenza infection and include fever, fatigue, lack of appetite, coughing, sore throat, joint pain, headache and rhinorrhea. Some people with swine flu have also reported vomiting and diarrhoea. Transmission of this new swine influenza virus is thought to occur in the same way as seasonal flu (see below).

At the current time, swine flu appears to be a condition affecting mainly young people/adults, especially those who have travelled to parts of the world where swine flu is widespread (e.g. Mexico and USA) although some cases in the UK have no travel history and appear to have caught it from someone else whilst in the UK. Care home residents are predominantly older people who are unlikely to be recent international travellers. However, the elderly can suffer a more severe illness when they get influenza and a more rapid deterioration, due to underlying disease, ageing of the immune system, immobility and debility.

When people are living in close proximity to one another, infection can also spread rapidly and more widely. Staff and visitors moving between residents can make the situation worse unless strict infection control measures are in place. An outbreak of influenza may cause rapid and significant illness and death, and possible outbreaks should therefore be investigated and managed promptly. This is true during the normal winter 'flu' season but especially so during the present swine influenza outbreak.

Usually we expect influenza in the winter months, but in the current situation staff and visitors should be reminded to be alert to the signs and symptoms of influenza in care home residents.

TRANSMISSION

Influenza is usually spread through one of three main routes: -

- **droplet transmission** – droplets >5 microns in size may be generated by coughing, sneezing, or even talking. If droplets from an infected person come into contact with the mucous membrane (mouth or nose) or surface of the eye of a susceptible individual they can cause infection. Because of their size these droplets do not remain in the air for long and do not travel more than a distance of one metre, so fairly close contact is required.
- **direct contact transmission** – this occurs during skin-to-skin or oral contact. Infectious organisms are passed directly from an infected person (for example after coughing into their hands) to a susceptible person and the person then transfers the organisms into their nose, mouth or eyes.
- **indirect contact transmission** – takes place when a susceptible person has contact with a contaminated object, such as bedding, furniture or crockery which is usually in the environment of an infected person. Again the susceptible person transfers the organisms from the object to their mouth, nose or eyes.
- **Aerosol generating procedures (AGPs)**, for example chest physiotherapy or nebuliser use, can produce droplets less than 5 microns in size which may cause infection if they are inhaled. Unless an aerosol generating procedure is performed, this mode of transmission is not considered important.

Table 1: Incubation period and period of communicability of Influenza viruses: comparison of seasonal and swine influenza

| Incubation period: | Period of communicability* |
|--|--|
| For swine influenza this is typically 3 to 4 days (but may range from 1 to 7 days) | For swine influenza flu this is unknown. |
| For seasonal influenza, typically 1-3 days | For seasonal influenza: up to 5 days after symptom onset in adults; and up to 7 days in young children and occasionally longer |

** Few data exist which convincingly demonstrate that transmission by asymptomatic persons is important in producing additional symptomatic cases, however transmission just before the onset of swine influenza symptoms has been described in school settings involving children*

Experimental studies of survival of the influenza virus suggest that, depending on the surface, it can survive for limited periods of time in the environment. When the transferability of influenza A virus from contaminated surfaces onto hands was evaluated, it was found that measurable virus could be transferred to hands from hard stainless-steel surfaces for up to 24 hours after the surface had been contaminated. Hygiene and environmental cleaning can therefore be important in helping to control spread through contact. Careful

and frequent hand washing or the use of commercially available alcohol handrub is recommended. The virus can also be transferred from soft materials (pyjamas, magazines, tissues) for up to two hours. However, only in very low quantities after 15 minutes though this is still long enough to pass on infection if hand hygiene is not correctly observed.

PROTECTION AVAILABLE FROM SEASONAL INFLUENZA VACCINES

Most care home residents will have received seasonal influenza vaccine containing a seasonal H1N1 strain (this should NOT be confused with the current Influenza A H1N1 swine flu strain). The current seasonal flu vaccine is designed to protect against seasonal H1N1, but it is unclear as yet whether this will offer any protection against the current strain of swine flu. It is safest to assume that it will not offer much protection.

RECOGNITION OF CASES AND OUTBREAKS

Prompt action is necessary if a flu-like illness is suspected. In order for someone to be considered as a **possible** case of swine flu the case definition below (which has both clinical AND epidemiological features) must be met.

Clinical

- Fever or oral temperature of 38.0° or more*
- **PLUS** two of the following
 - cough, runny nose, sore throat, sneezing, headache, limb/joint pain, diarrhoea/vomiting

AND

Epidemiological

- Travel within seven days to a country where there is sustained person to person transmission of the swine influenza virus (see hpa.org.uk)
- **OR** contact within seven days of a probable or confirmed case of swine flu any where in the world

**Note: illness in the elderly may not be accompanied by a fever. Instead, an acute deterioration in physical or mental ability without other known cause, OR acute onset of weakness should also be considered*

This definition is based on the S5 algorithm issued on 19th May 2009 by the HPA. The most up to date version of this algorithm can be found at:

<http://www.hpa.org.uk/web/HPAweb&Page&HPAwebAutoListName/Page/1240812234677>

If the conditions described above are met and swine flu is considered to be a possibility by either the GP or NHS Direct (0845 4647); then the local Health Protection Unit (HPU) should be contacted without delay and they will be able to arrange for testing to be undertaken and give advice on outbreak control measures (detailed below).

Influenza can spread rapidly with closed communities like care homes and it is important that potential outbreaks are identified early so that immediate steps are taken to prevent the spread of illness. An outbreak is defined as:

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| Two or more cases of influenza-like illness arising within the same 48 hour period in residents or staff |
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Care homes should therefore report any possible outbreaks of flu-like illness to their local HPU immediately. Contact details of local HPUs can be found on the main web page of the HPA web site (www.hpa.org.uk) in the box called "HPA in your region".

Detailed guidance for health professionals (including how to take and send clinical samples) on the investigation and management of individuals with suspected swine influenza can be found on the HPA website <http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1240812234677?p=1240812234677>.

OUTBREAK CONTROL

If a **possible** case of swine flu (in a resident or staff member) becomes a **probable** or **confirmed** case then identification and prophylaxis (see below) of close contacts will be carried out under the guidance of the local HPU.

Residents

In the event of an swine influenza outbreak, new admissions or transfers should be stopped. Whether this is the whole establishment or a unit or wing within it will depend on the feasibility of establishing self-contained areas for symptomatic and exposed residents and the staff caring for them. The length of closure to new admissions and transfers is largely dependent on the incubation period of influenza and so should be for 7 days in the in first instance. The local HPU will provide guidance.

Identification of close contacts

In general, individuals with swine flu are considered to be infectious only when symptomatic. Therefore those considered to be contacts are usually those in the same room as the case plus any others who have had an equivalent degree of contact (less than 1 metre for 1 hour or more) in the infectious period – while they have symptoms. However, in the circumstances of a care home where there may considerable mixing, it may be appropriate to consider the whole wing or home as the equivalent of close contacts. Staff should be assessed individually based on their own level of contact with the case. Local HPU staff are trained and experienced in defining close contacts

Prophylaxis, follow up and information

Prophylaxis involves giving a drug to prevent infection occurring. It is not the same as a vaccine and protection only lasts while the drug is being taken. Prophylaxis will be offered to all persons defined as close contacts by the local HPU. Information should be provided to all staff, residents and their families so that illness in the residents or staff can be identified and investigated promptly.

Specific Control Measures

Residents

- Enhanced surveillance for further cases should be initiated by way of monitoring of all residents for elevated temperatures and other respiratory symptoms.
- If possible, symptomatic residents should be cared for in single rooms. If this is not possible, symptomatic residents should be cared for in areas well away from residents without symptoms. If the design of the care home and the numbers of symptomatic residents involved permits, it is preferable to isolate residents into separate floors or wings of the home. Movement of symptomatic residents should be minimised.
- Assume cases to be infectious until all symptoms of acute influenza have gone.
- Resident's clothes, linen and soft furnishings should be washed on a regular basis and all rooms kept clean.
- More frequent cleaning of surfaces such as lockers, tables, chairs, televisions and floors may be indicated, especially those items located within one metre of a symptomatic patient.
- Hoists, lifting aids, baths and showers should also be thoroughly cleaned between patients. More advice can be found at <http://www.hps.scot.nhs.uk/haic/ic/guidelinedetail.aspx?id=37889>
- Residents should have an adequate supply of tissues, as well as convenient and hygienic methods for disposal. Patients should cover their nose and mouth with disposable single-use tissues when sneezing, coughing, wiping and blowing noses and clean their hands or use handrubs (microbicidal handrubs).
- Consideration might be given to the use of facemasks by affected residents (if this can be tolerated) when they are within one metre of other people.

Staff

- If possible, care home staff should work either with symptomatic or asymptomatic residents (but not both) and this arrangement should be continued for the duration of the outbreak.
- Agency and temporary staff who are exposed during the outbreak should be advised not to work elsewhere (e.g. extra shifts in another home or the local acute care hospital) until the cause is identified and appropriate advice given.
- Symptomatic staff should be excluded from the home until they are no longer symptomatic. The local HPU should also be contacted with the details of these individuals. Visiting should be discouraged during an outbreak - consistent with patient welfare
- Staff should clean their hands thoroughly with soap and water or a handrub (microbicidal handrubs, particularly alcohol-based) before and after any contact with residents, and upon going home at the end of a shift. Consideration should also be given to placing handrub dispensers at the residents' bedsides for use by visitors and staff.
- Staff should wear single-use facemasks, plastic aprons, and gloves when in close contact with a possible, probable or confirmed case.

- More stringent infection control is needed during aerosol generating procedures (AGPs) such as chest physiotherapy, airway suction, and CPR. Such procedures should be performed only when necessary and in well ventilated single rooms with the door closed. The numbers of staff exposed should be minimised and FFP3 respirators and eye protection should be used in addition to gowns, gloves and universal precautions - see HSE guidelines: <http://www.hse.gov.uk/biosafety/diseases/pandemic.htm>.
- Uniforms and other work clothing should be laundered at work if there are facilities for this. If laundered at home the general advice on washing work clothes would apply. Uniforms should never be worn between home and the place of work.
- Clinical waste should be disposed of according to standard infection control principles.
- Staff at risk of complications if infected (eg pregnant or immunocompromised individuals) should avoid caring for symptomatic patients.

Visitors

- Visits should be discouraged during an influenza outbreak where this is feasible and does not adversely affect the social/emotional needs of residents
- Visitors should avoid all physical contact and be at least at a one metre distance from possible cases and wear a single use face mask. They should clean their hands thoroughly with soap and water or a handrub (microbicidal handrubs, particularly alcohol-based) before and after visiting residents
- Symptomatic visitors should be excluded from the nursing home until they are no longer symptomatic. The local HPU should also be contacted with the details of these individuals.

SPECIFIC CONTROL MEASURES

Antiviral drugs such as Oseltamivir and Zanamivir for treatment or prophylaxis will be used in accordance with the latest HPA guidance on the HPA website and by arrangement with the local Health Protection Unit.

The HPA website www.hpa.org.uk is a useful source of further information on swine influenza.