

**Occupational Health Division  
Health Alert Briefing Note**

**Epidemic & Pandemic Alert & Response  
World Health Organisation raises alert level to Phase 6**

This means that the WHO considers the overall severity of the influenza pandemic to be moderate. This assessment is based upon scientific evidence available to the WHO, as well as input from its Member States on the pandemic's impact on their health systems, and their social and economic functioning.

The moderate assessment reflects that:

1. Most people recover from infection without the need for hospitalisation or medical care.
2. Overall, national levels of severe illness from influenza A (H1N1) appear similar to levels seen during local seasonable influenza periods, although high levels of disease have occurred in some local areas and institutions.
3. Overall, hospitals and health care systems in most countries have been able to cope with the numbers of people seeking care, although some facilities and systems have been stressed in some localities.

WHO is concerned about current patterns of serious cases and deaths that are occurring primarily among young persons, including the previously healthy and those with pre-existing medical conditions.

Large outbreaks of disease have not yet been reported in many countries, and the full clinical spectrum of disease is not yet known. The severity of pandemics can change over time and differ by location or population.

Close monitoring of the disease and regular sharing of information between WHO and its Member States during the pandemic period is essential for evaluating future severity assessments, if needed.

Future severity assessments would reflect one or a combination of the following factors:

- Changes in the virus,
- Underlying vulnerabilities, or
- Limitations in health system capacities.
- The pandemic is early in its evolution and many countries have not yet been substantially affected.

Both antiviral medication and vaccines have important roles in treatment and prevention respectively. However, existing stocks of antivirals are unlikely to meet the demand. Vaccines will be developed, but it will be some months. Therefore, rational use of the limited resources will be essential. Medicines are only part of the response. The WHO is deploying diagnostic kits, medicines, masks and gloves for health care settings.

A pandemic sets national authorities in motion to implement preparedness plans, identify cases as efficiently as possible, and minimize serious illness and deaths with proper treatment. The goal is to reduce the impact of the pandemic on society. Therefore staying informed, utilising reliable sources of information and educating staff on how to protect themselves is important as the pandemic evolves.

The WHO is not at this time recommending any travel restrictions.

The main route of transmission of the new influenza A (H1N1) virus seems to be similar to seasonal influenza, via droplets that are expelled by speaking, sneezing or coughing. Individuals can prevent getting infected by avoiding close contact with people who show influenza-like symptoms (trying to maintain a distance of about 1 metre if possible) and taking the following measures:

- avoid touching their mouth and nose
- clean hands thoroughly with soap and water, or cleanse them with an alcohol-based hand rub on a regular basis (especially if touching the mouth and nose, or surfaces that are potentially contaminated);
- avoid close contact with people who might be ill
- reduce the time spent in crowded settings if possible
- improve airflow in their living space by opening windows
- practice healthy habits including adequate sleep, eating nutritious food, and keeping physically active

Individuals who are not sick do not have to wear a mask. If an individual is caring for a sick person, a mask can be worn when in close contact with the ill person, however it should be disposed of immediately after contact and their hands should be washed thoroughly afterwards.

Advice if an individual feels unwell, has a high fever, cough or sore throat:

- stay at home and keep away from work, or crowds (in the case of children keep them away from school)
- rest and drink plenty of fluids
- cover your nose and mouth when coughing and sneezing and, if using tissues, make sure you dispose of them carefully. Clean your hands immediately after with soap and water or cleanse them with an alcohol-based hand rub
- if you do not have a tissue close by when you cough or sneeze, cover your mouth as much as possible with the crook of your elbow
- use a mask to help you contain the spread of droplets when you are around others
- inform family and friends about your illness and try to avoid contact with other people
- if possible, contact your General Practitioner surgery by telephone and discuss your symptoms rather than visiting

# **Contingency Planning for Influenza Pandemic**

## **Acorn Occupational Ltd**

**June 2009**

### **1 Executive Summary**

Current advice from the World Health Organisation is that countries should be planning for a possible influenza pandemic, although timing of onset is highly unpredictable. In the event of an influenza pandemic, businesses and other organisations' will have a key role to play in reducing the risk to employee's health and safety as far as possible as well as maintaining essential operations.

This document provides guidance relating to the operational objectives and action of Acorn Occupational Health Ltd in maintaining services to its Client base during a pandemic.

### **2 Introduction**

Influenza is an acute infectious viral illness that spreads rapidly from person to person when in close contact. It is characterised by the sudden onset of fever, chills, headache, muscle pain, exhaustion and usually a cough, with or without a sore throat or other respiratory symptoms. The acute symptoms generally last for about a week, although full recovery may take longer. In most years, seasonal influenza occurs in the UK predominantly during a six to eight week period in winter and affects some 5% to 15% of the population.

There are three broad types of influenza virus – A, B and C. Influenza A viruses cause most winter epidemics (and pandemics) and can affect a wide range of animal species as well as humans. They have a remarkable ability to adapt and change – which is what keeps them in circulation – and the resulting viruses can have widely differing impacts. Influenza B viruses only infect people. They circulate most winters but generally cause less severe illness and smaller outbreaks, particularly amongst children. Influenza C viruses are amongst the many causes of the common cold.

About half of those who become infected have no symptoms and are therefore not even aware of the infection. For the majority of the other half, 'seasonal' influenza is an unpleasant but self-limiting and not life-endangering illness. However, in some it may be more severe, or complicated by secondary bacterial infections such as bronchitis or pneumonia. The very young, older people and those with underlying diseases such as heart or chest disease are particularly at risk of serious illness. Without interventions, those in high-risk groups can suffer significant ill health, and a small percentage of those affected die. An estimated 12,000 – mainly older – people die each year from seasonal influenza in England and Wales. The cornerstone of reducing the impact of seasonal influenza is selective annual vaccination of those groups most at risk of serious illness, complications and death with an appropriately formulated vaccine.

### **3 How Influenza Spreads**

Influenza is one of the most difficult infectious diseases to control because the virus spreads easily from person to person via the respiratory route when an infected person talks, coughs or sneezes. It also spreads through hand-to-face contact if hands are contaminated.

Experimental studies suggest that influenza viruses may survive for some time on various surfaces, surviving longer on hard non-porous surfaces than on soft porous materials. Studies have also shown that careful hand washing with commercially available alcohol-based hand disinfectant and domestic cleaning products can easily deactivate the virus. The incubation period (the time from exposure to first symptoms) is in a range of one to four days, typically two to three. Without intervention – or significant immunity in the population – historical evidence suggests that one person infects about two others on average and that influenza spreads particularly rapidly in closed communities such as schools or residential homes. People are most infectious soon after they develop symptoms, although they can continue to shed virus for usually up to five days after the onset of symptoms.

It is sometimes stated that individuals are infectious shortly before they develop symptoms; however, the evidence for this is limited. Spread from a person before they develop symptoms has rarely been recorded, although experimental studies have shown that some people start shedding low doses of virus in the 24 hours before symptoms occur. Some people can be infected without showing symptoms and as they may shed the virus they may pass on the infection.

### **4 An influenza pandemic**

Pandemic influenza occurs when an influenza A virus subtype emerges or re-emerges which is:

- markedly different from recently circulating strains
- able to infect people
- readily transmissible from person to person
- capable of causing illness in a high proportion of those infected
- able to spread widely because few people have natural or acquired immunity to it.

Whilst such a virus could first emerge anywhere in the world, South East Asia, the Middle East and Africa are widely considered to be the most likely potential sources. It would initially spread to cause outbreaks and epidemics within the country of origin and its immediate neighbours before spreading globally to cause a pandemic. The conditions that allow a new virus to develop and spread continue to exist, and some features of modern society, such as air travel, could accelerate the rate of spread. Experts therefore agree that there is a high probability of a pandemic occurring, although timing and impact are impossible to predict.

## **5 Medical countermeasures**

A vaccine specifically to protect against the pandemic influenza virus cannot be made until the pandemic virus has emerged and will not start to be available until 4-6 months later. Even then, it will be a number of months before significant supplies become available. The current planning assumption is that a vaccine will become available only after the first wave of the pandemic has passed.

Anti-viral drugs are expected to reduce the duration of the illness and the likelihood of complications. These drugs are now being stockpiled to treat those who may become ill. These drugs will be the only major medical countermeasure available in the absence of a specific vaccine.

Social measures and travel restrictions. During a pandemic, Government may recommend additional measure on an advisory basis, such as limiting social interactions and any non-essential travel in an attempt to slow down the spread of the virus in the early stages after its arrival in the UK.

## **6 Absence from Work**

Work patterns have changed significantly since previous pandemics and therefore it is unwise to depend upon historical data on sickness absence. Absence from work will depend on the age the specific attack rate, although even if working age people are relatively spared, additional absenteeism may result from staff needing to take time off to care for family members, or difficulties with transport.

Accelerated transmission may occur in the workplace, resulting in staff being infected more easily and quicker than in the general population. It is suggested that business continuity plans are based on a cumulative total of 25% of workers taking some time off – possibly 5-8 working days over a period of 3 – 4 months.

Modelling suggests absenteeism due to a pandemic will rise to a peak of 5-7%. This equates to about three times the normal average absenteeism. Even in the reasonable worst case of a 50% attack rate these figures only rise to 10-15%. However the absenteeism rate would not be uniform and therefore businesses could be particularly badly affected.

## **7 Extent to which interventions may ameliorate the impact**

Vaccination with a vaccine specifically formulated against the pandemic virus strain, when an appropriate vaccine becomes available, can be expected to achieve the greatest impact. However, much work has been done on the most effective strategies for the use of antiviral drugs.

If treatment with antiviral drugs provides benefits of the same order as those demonstrated during seasonal influenza, early treatment (within 48 hours of onset of illness) should shorten illness by around one day, reduce the severity of the symptoms and reduce the need for hospitalisation.

If, as planned, by the Government, it is possible to treat all those with clinical symptoms, there should be a reduction in the number of hospitalisation needed by around 50%. The amount of antiviral drug required if it were to be taken to prevent people from getting the disease over the entire pandemic period is prohibitive and a treatment strategy is the only realistic option.

In the UK contingency plan administering vaccine for the general population comes at the bottom of the list after:

- Protection of health care workers
- Workers within essential services
- Prevention of serious illness in the (anticipated or confirmed) most vulnerable groups
- Reduce the spread in situations where it might spread rapidly
- Reduce spread by immunisation those likely to transmit the virus e.g. children

## **8 Implications for Occupational Health**

Occupational Health will play a major role in communicating internally and externally with the company's clients. In the event of a pandemic Acorn's Business Continuity Plan (BCP) will be invoked and Occupational Health (OH) staff will follow and implement processes and procedures as detailed within the BCP.

Communication – OH staff will be communicated with as necessary. Clients will receive a client briefing note at regular intervals at the point of a Phase 6 alert by the World Health Organisation (WHO). Phase 6 alert (this means the virus is continually spread amongst people globally and the WHO will declare a pandemic). The frequency of briefing documents to our named contacts will depend upon the severity of the pandemic alerts from the WHO.

### **Service Delivery**

Acorn Occupational Health Ltd will be as affected by a pandemic as our clients and therefore we will take all reasonable steps to ensure service continuity and will depend mainly upon the UK's infrastructure in terms of transport, power, telecommunications and internet being maintained. In addition Acorn Occupational Health Ltd will implement its prophylaxis programme upon advice from the WHO / UK Government advising travel restrictions. At this point our advice will be for all Occupational Health Advisors and Operations Support Administrators to work from home. Our BCP allows for access to systems remotely (provided infrastructure remains in tact).

**Pre-employment Health Screening** – those clients who already procure this service should see no change to the process or turnaround times.

**Sickness Absence Referrals / Management Referrals** – these will be scheduled for the OH Advisors remotely. Clients who make such referrals via email will not be affected (provided the Infrastructure remains intact). Paper referrals will probably be affected and email referrals will be advised to such clients during this time. Our turnaround time for reports will be maintained subject to availability of infrastructure.

**Health Surveillance** – planned programmes will be placed on hold however full details on how we intend to catch up with surveillance that should have been undertaken within the pandemic period will be forwarded to our named contact.

Further information can be provided by Acorn Occupational Health Ltd staff by contacting Acorn Occupational Health Ltd on 01260277797.

***(Reference World Health Organisation Update 11<sup>th</sup> June 2009)***

## **9 Bibliography**

**Pandemic Preparedness**, World Health Organisation (08/03/2006)

**Pandemic Flu – A National Framework for Responding to an Influenza Pandemic**, Department of Health. November 2007

**Ten things you need to know about pandemic influenza 14 October 2005**, World Health Organisation (08/03/2006)

**WHO checklist for influenza pandemic preparedness planning (2005.4)**

**Pandemic Flu, UK Health Departments, UK Influenza Pandemic Contingency Plan October 2005, NHS**

**WHO consultation on priority public health interventions before and during influenza pandemic – Working Group Three: Antivirals – their use and availability.** Website 08/03/2006 **Working Group Four: Better vaccines – better access.** Website 08/03/2006

[www.dh.gov.uk/PolicyAndGuidance/EmergencyPlanning/PandemicFlu/fs/en](http://www.dh.gov.uk/PolicyAndGuidance/EmergencyPlanning/PandemicFlu/fs/en)

[www.who.int](http://www.who.int)

[www.hpa.org.uk/infections/topics\\_az/influenza/seasonal/flufaq.htm](http://www.hpa.org.uk/infections/topics_az/influenza/seasonal/flufaq.htm)

Business continuity: [www.ukresilience.info/publications/060710\\_revised\\_pandemic.pdf](http://www.ukresilience.info/publications/060710_revised_pandemic.pdf)

[www.ukresilience.info/publications/060516flubcpchecklist.pdf](http://www.ukresilience.info/publications/060516flubcpchecklist.pdf)

Overseas travel advice would be available from the Foreign and Commonwealth website:

[www.fco.gov.uk](http://www.fco.gov.uk)

For more information on Avian flu –

[www.defra.gov.uk/animalh/diseases/notifiable/disease/ai/index.htm](http://www.defra.gov.uk/animalh/diseases/notifiable/disease/ai/index.htm)

For more information on Working with Highly Pathogenic Avian Influenza Virus –

[www.hse.gov.uk/biosafety/diseases/avianflu.htm](http://www.hse.gov.uk/biosafety/diseases/avianflu.htm)