



H1N1 Update

Wednesday 30 September 2009

1. Introduction

Infection rates fell through August and the first part of September but have been rising for the past two weeks, although they remain within the normal winter baseline. As anticipated, rates are rising mainly in the 5-15 age group and figures suggest the early stages of a second wave of A/H1N1sw (swine lineage). There were 9000 total cases in England last week and 5200 the week before. There have been 70 fatalities since the outbreak began. The vast majority of circulating flu in the UK is swine flu strain, and there have been just two antiviral resistant cases in the UK.

This update provides the latest advice on influenza type A/H1N1sw, referred to as H1N1. Advice includes:

- New UK planning assumptions (Section 2)
- Vaccination programme (Section 3)
- General advice on H1N1 (Section 4)
- Antiviral medication (Section 5)
- Advice for workplaces (Section 6)

2. New UK Planning Assumptions

These were published at the beginning of September by the DoH and contain projections for the 'reasonable worst case scenario'.

| Planning assumptions to mid-May 2010 | |
|--------------------------------------|--|
| Clinical attack rate: | up to 30% of the population |
| Peak clinical attack rate: | 4.5 to 8% of population per week |
| Case complication ratio: | up to 15% of clinical cases |
| Case hospitalisation ratio: | up to 1% of clinical cases, of whom up to 25% could require intensive care treatment |
| Case fatality ratio: | up to 0.1% of clinical cases |
| Peak absence rate: | up to 12% of the workforce |

It is anticipated that 30% of the population will be infected with A/H1N1sw in total (over the course of the current outbreak) with as many as 5% of the population being affected at any one time. For closed environments like schools and offices, this figure could be higher with an estimate of up to 12% of workforces being affected at any one time. The figures have been significantly revised downwards from initial assumptions.

Case fatality rates of up to 1:1000 are similar to seasonal flu although we know that younger children are at increased risk of severe illness from this virus compared to seasonal flu. Pregnant women are at increased risk from seasonal and H1N1 flu and the risk from H1N1 *per se* is not greater on a case by case basis.

3. Vaccination Programme

The European medicines agency (EMA) has authorised the Glaxo SmithKline vaccine Pandemrix® and given a positive opinion on a second vaccine called Focetria® produced by Novartis. This is expected to get full authorisation within days. A third vaccine, Celvapan®, produced by the drug company Baxter is still under review, although stockpiles of vaccine have been available in the UK for over a month now.

The current advice is that individuals will need two shots three weeks apart.

Vaccine Q and A

Who will be vaccinated

Q: What are the priority groups?

People who are most at risk from swine flu need to be vaccinated first. These groups are, in priority order:

- Individuals aged between six months and up to 65 years in the current seasonal flu vaccine clinical at-risk groups
- All pregnant women. The European Medicines Agency license will indicate whether the vaccine can be given to all pregnant women or whether it should only be offered at certain stages of pregnancy
- Household contacts of immuno-compromised individuals
- People aged 65 years and over in the current seasonal flu vaccine clinical at-risk groups

Frontline health and social care workers across the UK will also be offered the vaccine at the same time as the first clinical risk group as they are at increased risk of infection and of transmitting that infection to vulnerable patients.

Q: Does asthma fit into the “at risk group” of ‘chronic respiratory disease’?

Individuals suffering from asthma that requires continuous or repeated use of inhaled or systemic steroids or with previous exacerbations requiring hospital admission are considered for the purpose of the seasonal flu programme to have chronic respiratory disease. They should, therefore, receive both seasonal and H1N1 vaccination.

Q: How do you define immunocompromised / immunosuppressed?

The definition of 'immunocompromised' or 'immunosuppression' has been determined by the Joint Committee on Vaccination and Immunisation (JCVI) together with advice from the Royal College of Paediatrics and Child Health, British HIV Association, and is set out in Immunisation against infectious disease - 'The Green Book'.

http://www.dh.gov.uk/en/Publichealth/Healthprotection/Immunisation/Greenbook/DH_4097254

Immunosuppression may be due to disease or treatment. Immunocompromised individuals may include patients undergoing chemotherapy leading to immunosuppression; asplenia or splenic dysfunction (absent or under active spleen); HIV infection at all stages; individuals treated with or likely to be treated with systemic steroids for more than a month (at a dose equivalent to prednisolone at 20mg or more per day (any age) or for children under 20kg a dose of 1mg or more per kg per day).

Q: How do you define a 'household contact'?

A household contact is someone who lives with someone whose immune system is compromised, such as someone with cancer or HIV/AIDS. It is important that they have the vaccine to help protect the at-risk person they live with.

Q: When will everyone else who isn't in a priority group receive the vaccine? And why aren't children included in the priority groups?

Prioritisation of different groups for vaccination is based on the best available scientific evidence and this is considered by two independent expert committees - the Joint Committee for Vaccination and Immunisation (JVCI) and the Scientific Advisory Group for Emergencies (SAGE). If a child has an underlying health condition and usually has the seasonal flu jab they will need to be vaccinated against swine flu. Otherwise it is important that we prioritise those who need it most.

Q: Will private companies be able to procure H1N1 vaccine to administer to their staff?

No. Current stockpiles are inadequate for the entire population and will not be available in this way. Vaccines will be administered through the NHS to priority groups as described above. Seasonal vaccine will be available privately in the normal way and it is recommended that individuals have this vaccine in the usual way.

The vaccine

Q: What is the difference between the different vaccines?

The UK government has contracts in place with two suppliers, Baxter and GSK, GlaxoSmithKline.

Pandemrix© (GSK) is an inactivated split virus vaccine containing an adjuvant (a chemical which stimulates the immune response);

Focetria© (Novartis) is also an inactivated split virion vaccine with an adjuvant.

Celvapan© (Baxter) is an inactivated whole virus vaccine which does not contain adjuvant.

Q: Will the vaccine give the recipient swine flu?

No. The vaccine does not carry a 'live' virus so it can't give patients swine flu.

Q: What are the adverse reactions to the vaccine?

As with most vaccines, the most common side effects are mild fever, general aches and pains, a rash and feeling tired. These will usually go away within a day or two. If people are concerned about side effects, they should talk to their GP.

Q: How can we be sure that the vaccine is safe for pregnant women?

Epidemiological data for swine flu episodes shows that pregnant women are at higher risk of severe disease. This is why the Joint Committee on Vaccination and Immunisation advised that pregnant women are a high priority to receive the vaccine.

Pregnant women who fall into one of the clinical risk groups for seasonal influenza are routinely offered seasonal flu vaccine.

All swine flu vaccines are inactivated, in other words they are not live. There is no evidence of increased risk from vaccinating pregnant women or those who are breast-feeding with inactivated vaccines.

While JCVI has advised that pregnant women should receive the vaccine they stated that this would be subject to the vaccine receiving a license from the European Medicines Agency (EMA) and the EMA may advise that the vaccine should only be given at certain stages of pregnancy.

Q: Can swine flu vaccine be given at the same time as other vaccines?

Yes. The swine flu vaccine can be given at the same time as other vaccines including the seasonal influenza vaccine.

4. General swine flu questions

Q: What is the difference between seasonal flu and swine flu?

Seasonal flu occurs every year. Swine flu is a new flu virus that has spread quickly around the world causing a pandemic. Viruses like this are quite rare. There were three flu pandemics in the 20th century, the last one in 1968.

Q: If someone has already had swine flu, do they still need to be vaccinated?

You can only be sure someone has had swine flu if it has been confirmed by a laboratory test. Otherwise they may have had normal flu or something else. Without that laboratory confirmation for swine flu then the vaccination should still be considered.

Q: If the virus is mild, why are we purchasing enough vaccine for the whole population?

The swine flu virus is new and so we are all susceptible to catching it. Whilst most people with swine flu only have mild symptoms some can become more seriously ill.

While we are still learning more about swine flu it is right that we take a 'safety first' approach. We are working with clinical and scientific experts to better understand the virus. Their advice is that the best form of protection against a new virus is to vaccinate people against it.

Q: I'm worried about swine flu but I'm not in a priority group – what do I do?

People in the priority groups are more at risk of becoming seriously ill. Most other people will only have mild symptoms.

If you are not in a priority group or are a front line health or social care worker eligible for the vaccine but think you may have swine flu, stay at home and contact the National Pandemic Flu Service via the link below or call 0800 1 513 100. They can then give you advice and, if necessary, provide you with antiviral drugs.

Q: Why is it important for pregnant women to receive the 2009 H1N1 influenza vaccine?

It is important for a pregnant woman to receive the 2009 H1N1 influenza vaccine as well as a seasonal influenza vaccine. A pregnant woman who gets any type of flu is at risk for serious complications and hospitalization. Pregnant women who are otherwise healthy have been more impacted by H1N1. While hand washing, staying away from ill people, and other steps can help to protect pregnant women from influenza, vaccination is the single best way to protect against the flu.

Q: Is there a particular kind of flu vaccine that pregnant women should get? Are there flu vaccines that pregnant women should not get?

Pregnant women can receive any of the licensed inactivated H1N1 vaccines. The European Medicines Agency has yet to advise whether this advice applies to all stages of pregnancy or not.

Q. Will the seasonal flu vaccine also protect against the 2009 H1N1 flu?

The seasonal flu vaccine is not expected to protect against the 2009 H1N1 flu. Similarly, the 2009 H1N1 influenza vaccine will not protect against seasonal influenza.

Q. Can the seasonal influenza vaccine and the 2009 H1N1 influenza vaccine be given at the same time?

It is anticipated that seasonal flu and 2009 H1N1 vaccines may be administered on the same day but given at different sites (e.g. one shot in the left arm and the other shot in the right arm). However, the seasonal vaccine is likely to be available earlier than the 2009 H1N1 influenza vaccine. The usual seasonal influenza viruses will still cause illness this autumn and winter and so people should be vaccinated as usual.

Q: Does the 2009 H1N1 influenza vaccine have preservative in it?

There is no evidence that thiomersal (used as a preservative in vaccine packaged in multi-dose vials) is harmful to a pregnant woman or a fetus. However, because some women are concerned about exposure to preservatives during pregnancy. Manufacturers have indicated that they will produce preservative-free seasonal and 2009 H1N1 influenza vaccines in single dose syringes for pregnant women and small children. Precise details are not yet available and the majority of doses will be administered from multidose vials which do contain preservative.

Q: What are the possible side effects of the 2009 H1N1 influenza vaccine?

The side effects from 2009 H1N1 influenza vaccine are expected to be similar to those from seasonal flu vaccines. The most common side effects following vaccination are expected to be mild, such as soreness, redness, tenderness or swelling where the shot was given. Some people might experience headache, muscle aches, fever, nausea and fainting. If these problems occur, they usually begin soon after the shot and may last as long as 1-2 days. Like any medicines, vaccines can cause serious problems like severe allergic reactions. However life-threatening allergic reactions to vaccines are very rare. In 1976, an earlier type of swine flu vaccine was associated with cases of a severe paralytic illness called Guillain-Barre Syndrome (GBS) at a rate of approximately 1 case of GBS per 100,000 persons vaccinated. Studies done since 1976 have shown a small risk of GBS in those receiving the seasonal influenza vaccine. This risk is estimated to be no more than 1 case of GBS per 1 million people vaccinated. Since then, flu vaccines have not been clearly linked to GBS. GBS has a number of different causes, and GBS can occur in a person who has never received an influenza vaccine. The potential benefits of influenza vaccination in preventing serious illness, hospitalization, and death substantially outweigh these estimates of risk for vaccine-associated GBS.

Anyone who has a severe (life-threatening) allergy to eggs or to any other substance in the vaccine should not get the vaccine. People should always inform their immunization provider if they have any severe allergies, if they've ever had a severe allergic reaction following flu vaccination, or if they have ever had GBS.

5. Antiviral Drugs

Q. Who is prioritized for treatment with influenza antiviral drugs?

Most people ill with influenza will recover without complications. Some people are at increased risk of influenza complications and are prioritized for treatment with influenza antiviral drugs this flu season. They include:

- People hospitalized with suspected or confirmed influenza
- People with suspected or confirmed influenza who are at higher risk for complications
- Children younger than 5 years old (children under 2 years old are at higher risk for complications than older children)
- Adults 65 years and older
- Pregnant women
- People with certain chronic medical or immunosuppressive conditions
- People younger than 19 years of age who are receiving long-term aspirin therapy

Physicians may also decide not to treat some people in these groups and/or treat people who are not in these groups based on their clinical judgment.

Q. Who is lower priority for treatment with influenza antiviral drugs?

Treatment with influenza antiviral drugs is generally not needed for people who are not at higher risk for complications or do not have severe influenza, such as those requiring hospitalization. However, any suspected influenza patient who presents with emergency warning signs (for example, difficulty breathing or shortness of breath) or signs of lower respiratory tract illness (pneumonia or bronchitis) should promptly receive antiviral therapy. Doctors may treat some people who are not in a high risk group based on their clinical judgment. In addition, doctors also may decide that treatment is not needed for some who are in a high-risk group based on their clinical judgment.

Repeat courses of anti-viral medication

Where individuals have already taken anti-viral medication, they are still eligible for repeat courses if they become ill again or are still unwell. However they cannot get these through the National Pandemic Flu Service (NPFSS) but will need to contact their GP directly.

6. Advice for workplaces

Flu-like symptoms:

Clinical diagnostic criteria

Clinicians are now encouraged to diagnose pandemic (H1N1) 2009 influenza cases on the basis of symptoms. The clinical diagnostic criteria are:

Fever [$\geq 38^{\circ}\text{C}$] or a history of fever,

AND

influenza-like illness (TWO OR MORE of the following symptoms:

- cough
- sore throat
- runny nose
- limb or joint pain
- headache
- vomiting or diarrhoea

OR

severe and/or life-threatening illness suggestive of an infectious process

All those who have contracted pandemic (H1N1) 2009 influenza will continue to be offered antiviral drugs and these may be accessed by the National Pandemic Flu Service (see below). For individuals who are not at high risk of severe infection, the decision to take antiviral drugs will be at the clinical discretion of the assessing clinician, in discussion with the patient.

It is important that those in higher-risk groups get antivirals and start using them within 48 hours of the onset of symptoms. This includes those with long-term lung, kidney, neurological, liver or heart disease; children under five; people over 65; those with diabetes mellitus; the immunosuppressed (whether caused by disease or treatment); patients who have had drug treatment for asthma within the past three years; and pregnant women.

Q: Can I get Tamiflu or Relenza for a second time if I have a new flu-like illness.

You will not be able to get a second course of antivirals through the National Pandemic Flu Service and you will be directed to your usual GP who will make an assessment (on the telephone in the first instance).

If you are unwell with flu-like illness:

If you think you have swine flu symptoms you should check them on <http://www.direct.gov.uk/pandemicflu> or call the National Pandemic Flu Service (NPFs) on 0800 1513 513. If you are still concerned you should call your GP.

If it is felt that the symptoms are consistent with influenza, then you may be offered anti-viral treatment. You will be advised to stay at home and limit your contact with other people until you have:

- completed a course of antiviral medicines. If you have a mild case of disease and no other health problems you may not necessarily need a course of antiviral although these are still being offered to anyone with flu-like symptoms. medicine.
- no flu-like symptoms especially fever, cough or runny nose.

For most people this will be after 5-7 days.

Certain groups are advised to contact their doctor rather than use the National Pandemic Influenza Service; these are: people with serious underlying health conditions, pregnant women, children under one or children whose condition suddenly gets worse and those whose condition is still getting worse after 7 days (5 days for a child).

Illness in the workplace

If a member of staff attends work and is obviously unwell with flu-like symptoms they should be sent home and asked to call the National Pandemic Flu Service on 0800 1513 100. Those with internet access can log onto the website at:

<http://www.direct.gov.uk/pandemicflu>.

Close contacts of swine flu cases

People who have had contact with a person with swine flu but are showing no symptoms do not need to be excluded from the workplace.

In some circumstances, people in certain higher risk groups who are a close contact of people with swine flu may be started on antiviral medicine as a precautionary measure. They should continue their normal lives, including going to work, so long as they do not develop any flu-like symptoms.

Preventing the spread of swine flu

It is important to remember that flu is usually spread from one person to another when an infected person has symptoms (i.e. through coughing and sneezing).

Everyone in the workplace can play their part by practising good hygiene. This includes:

- Washing hands frequently with soap and water, to reduce the spread of virus from your hands to your face or to other people.

- Covering your nose and mouth when coughing or sneezing, using a tissue when possible.
- Disposing of dirty tissues promptly and carefully
- Cleaning all hard surfaces (such as door handles) frequently, using a normal cleaning product.

Travel advice

If you have swine flu, do not travel until after your symptoms have stopped.

http://direct.gov.uk/en/Swineflu/DG_177834

Travel advice by country

<http://www.fco.gov.uk/en/travelling-and-living-overseas/travel-advice-by-country/>

For detailed advice and information visit the Foreign and Commonwealth Office website above or call their helpline on 0845 850 2829.

Q. Will I be allowed to fly?

It is up to individual airlines to decide if they let a person with flu-like symptoms to fly. Several airlines are refusing to let people with symptoms of flu to travel.

If you are prevented from boarding a flight when trying to return home from abroad you can seek Consular advice from your nearest Diplomatic mission.

If you need Consular advice or assistance, call 020 7008 1500 (+44 20 7008 1500 from abroad). This line is open 24 hours a day

This update provides general advice and directs individuals to recognised sources of information. It is not a substitute for medical assessment and if you have specific questions relating to any of the issues discussed or you have symptoms which you feel may be flu related, then you should discuss these with your normal health care provider.