



Pandemic Flu (H1N1) 2009

Recommendations for vaccination against pandemic flu (H1N1) 2009.

The pandemic flu (H1N1) 2009 virus is the result of a combination of two swine viruses, one avian virus and one human virus, which is why it has come to be known as “swine flu”. When it was identified, in the spring of 2009, it had already adapted to humans. The virus was first isolated in Mexico. Since then it has spread rapidly all over the world, giving rise to a pandemic. This infectious virus is transmitted by direct or indirect contact with infected persons while they are speaking, coughing or sneezing. These actions give rise to clouds of droplets containing viruses that float in the surrounding air and deposit on objects within a distance of up to one metre. It is estimated that without vaccination, 1 to 2 million people will be infected by the virus (H1N1) in Switzerland during the autumn and winter of 2009. It is also quite possible, although not certain, that this virus will return to Switzerland in 2010. In most cases the pandemic flu (H1N1) 2009 will be no more severe than seasonal flu. Its complications can, however, be dangerous and even lead to death, in particular in the case of infants, pregnant women and people with chronic diseases.

The risks of pandemic flu (H1N1) 2009.

The pandemic flu (H1N1) 2009 virus causes fever, coughing, a cold and a sore throat. Some people react with a very high fever, shivering, headache, aching muscles and joints, severe fatigue and loss of appetite. In small children, vomiting and diarrhoea are also frequent. As a rule the incubation period (time between infection and the appearance of the first symptoms) is 2 to 4 days (maximum 7 days). The symptoms last for about 1 week. The most important serious complication of the pandemic flu (H1N1) 2009 is a viral pneumonia which, in turn, can sometimes be complicated by a bacterial superinfection, usually caused by *Pneumococcus*. Lungs infected by the pandemic flu (H1N1) 2009 virus may be so badly affected that the supply of oxygen to the blood becomes insufficient. In these cases hospitalisation is necessary, so that oxygen can be administered or respiratory support may be provided by artificial means. Treatment in an intensive care unit can often, but unfortunately not always, prevent a fatal outcome.

For healthy children and adults the risk of a serious complication is low. The risk is higher, on the other hand, among infants, pregnant women and people with diseases which weaken their lungs or immune defences.

It is estimated that less than 1% of all persons seriously ill with pandemic flu (H1N1) 2009 need to be hospitalised. About 7 out of 10 hospitalised persons have risk factors that increase the probability of a complication (underlying chronic diseases, immunodeficiency or pregnancy). The risk of a fa-

tal outcome is somewhere between 1 and 10 people per 10,000 cases of the disease. Most fatal cases concern people with an increased risk of complications due to an underlying condition.

Vaccination against pandemic flu (H1N1) 2009.

Seasonal flu vaccines do not provide protection against pandemic flu (H1N1) 2009. During the summer of 2009 the manufacturers of flu vaccines developed a specific vaccine against this new flu virus. They started out from a (H1N1) 2009 virus that had been isolated in California. The vaccine is an inactivated vaccine that does not contain any live viruses and therefore cannot cause flu. The vaccines chosen for Switzerland contain parts of the virus (antigens) which are mixed with an oil-in-water emulsion (adjuvant) that enhances the immune reaction. Flu vaccines of this type began to be developed over 12 years ago. They have been investigated in over 100 studies and administered to over 45 million people, also in Switzerland.

It is not yet known exactly how effective the pandemic flu (H1N1) 2009 vaccine will be. Comparable vaccines against other flu viruses have been effective in protecting the majority of vaccinated people. Thanks to the fatty substance contained in the vaccines, it is expected that the protection afforded by vaccination against the (H1N1) 2009 virus will be better than that achieved with seasonal flu vaccines. Protection is, however, not 100% guaranteed. If a person falls ill with pandemic flu (H1N1) 2009 in spite of having been vaccinated, the risk of complications will be lower than for people who have not been vaccinated. Some degree of protection sets in as early as 2 weeks after the first vaccination. For optimum and long-lasting protection, 2 injections with an interval of at least 3 weeks between them can be required.

Side effects of the pandemic flu (H1N1) 2009 vaccination.

The vaccines against pandemic flu (H1N1) 2009 are still too new for all their possible side effects to be known in detail. The studies conducted with similar vaccines for avian flu or seasonal flu have shown that inflammatory reactions are more frequent than with traditional vaccines for seasonal flu. A local reaction at the site of the injection is to be expected; pain (in 8 people out of 10), reddening and swelling (in 1 to 2 people out of 10), sometimes accompanied by fever and itching for 2 to 3 days. Strong inflammatory reactions with a high fever, shivering, aching muscles and joints, headache and fatigue are sometimes observed (in 6 people out of 100). In most cases these symptoms last for 1 or 2 days and clear up spontaneously. Pain-killing medication, e.g. paracetamol, provides relief in these cases. Severe allergic reactions to any components of the vaccine are very rare. They occur within a few minutes to a few hours after the injection. Certain vaccines against pandemic flu (H1N1) 2009 are supplied in vials containing at least 10 doses. A mercury-

based preservative (thiomersal) have been added to these vaccines in very small amount. This substance is also employed in other vaccines used all over the world, and it has therefore been possible to observe the safety of such vaccines over decades. It has been confirmed that small quantities of thiomersal in the vaccine against pandemic flu (H1N1) 2009 do not constitute a health risk.

At the present time the risk of rare, unusual or severe side effects cannot be excluded. In any case, however, the risk of a severe complication caused by the vaccination is far lower than that of a complication caused by pandemic flu (H1N1) 2009.

It is important to remember that vaccination against the pandemic flu will only give protection against this disease. All other health problems will continue to crop up, either before or just after vaccination. This does not mean, however, that the vaccination is to blame.


Who should be vaccinated against pandemic flu (H1N1) 2009?

Vaccination is a priority for:

- 1) healthcare workers in contact with patients and people who, in their jobs, look after babies under the age of 6 months, in order to lower the risk of transmission and to protect people at risk from a disease;
- 2) pregnant women (preferably from the 2nd trimester onwards) and women after delivery;
- 3) children (from the age of 6 months onwards), adolescents and adults aged up to 64 with chronic heart and lung diseases (especially congenital heart defects, cardiac insufficiency, asthma, cystic fibrosis), chronic metabolic diseases affecting the heart, lungs or kidneys (e.g. diabetes), renal insufficiency, diseases of the blood or immunosuppression;
- 4) premature babies under the age of 2 during the flu period (from the age of 6 months onwards);
- 5) people with family members belonging to the groups listed under points 2, 3 and 4 above or with babies aged under 6 months living in the same household;
- 6) people aged 65 or above who have chronic diseases (see point 3). These people have the advantage of a certain pre-existing immunity against the pandemic flu (H1N1) 2009 virus. Vaccinating them is therefore less of a priority.

Doctor's stamp



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Vaccination is also recommended (complementary vaccination) for the following, as soon as sufficient vaccine becomes available:

7) everyone (children from the age of 6 months onwards, adolescents and adults) wishing to protect themselves and the people close to them against pandemic flu (H1N1) 2009 and its complications.

For whom is vaccination against pandemic flu (H1N1) 2009 not recommended?

Until appropriate data are available, vaccination of babies aged under 6 months is not recommended. In order to avoid the risk that a miscarriage – these being frequent in the 1st trimester – coincides by chance with a vaccination, pregnant women should preferably not be vaccinated until the 2nd trimester of pregnancy. Vaccination should be postponed in the event of diseases causing fever. Furthermore, people with severe allergies to chicken egg proteins or to other components of the vaccine should not be vaccinated until they have discussed the situation with their doctor.

Are there other ways to protect oneself against pandemic flu (H1N1) 2009?

Simple hygiene measures such as washing hands regularly, avoiding rubbing the eyes, mouth or nose, keeping at a distance (at least 1 metre) from other people and keeping away from crowds as much as possible will lower the risk of infection. Wearing a face mask when coming into contact with an infected person or in a crowd (e.g. when using public transport in the rush hour) will reduce the risk of infection.

Your doctor recommends that everyone with an increased risk and the people close to them should protect themselves against pandemic flu (H1N1) 2009. Do not hesitate to discuss this with him/her, he/she will be pleased to answer your questions.

Further information: the Health Authorities of the Cantons are responsible for organising the pandemic flu (H1N1) 2009 vaccination campaign. In due course they will provide information as to how and where it will be possible to be vaccinated. This vaccination is free of charge. More information about pandemic flu (H1N1) 2009 is available at www.pandemia.ch while information about vaccinations in general can be found at www.infovac.ch

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