



Health and Healthy Living
Public Health Division

Questions and Answers for Health Care Providers

Pandemic H1N1 (pH1N1) Influenza Vaccine

These questions and answers are intended to provide additional information to assist with answering questions from the public about the pandemic H1N1 influenza vaccine (pH1N1). Every effort will be made to update the material, as new information becomes available. Please visit the Manitoba government flu website on a daily basis for the most up to date information and resources: www.manitoba.ca/flu.

****This document has been adapted from a Winnipeg Regional Health Authority (WRHA) document****

General Information

1. **Why will there be two types of pH1N1 influenza vaccines in Canada? *UPDATED**

There will be two types of pH1N1 influenza vaccine available in Canada- an adjuvanted (Arepanrix™) and two unadjuvanted formulations (CSL Panvax® and a GSK product) Most pH1N1 influenza vaccine administered in Canada will be the adjuvanted formulation that became available in late October.

The adjuvanted vaccine contains an adjuvant- a substance that is added to a vaccine to boost people's immune response to the vaccine. The use of an adjuvant allows a comparable immune response but at a significantly lower antigen dose, thus allowing faster production of more doses of vaccine. Adjuvant use is also expected to broaden the immune response and provide some cross protection against virus drift.

However, there has been no safety data published for the use of the adjuvanted vaccine in pregnant women. The Public Health Agency of Canada has recommended that pregnant women at any stage of their pregnancy should receive the pH1N1 influenza vaccine without adjuvant. Consequently, the vaccine without adjuvant is the first choice for pregnant women.

The agency has also advised that if the pH1N1 influenza vaccine without adjuvant is not easily available and pandemic pH1N1 influenza rates are high or increasing, women who are at 20 weeks gestation or more, or women at any stage of pregnancy who have a chronic medical condition (like asthma or diabetes) can consider getting the pH1N1 influenza vaccine with adjuvant. Women who are less than 20 weeks pregnant and are healthy can wait to get the vaccine without adjuvant. Pregnant women have been advised to talk to their health care provider about which pH1N1 vaccine is best for them.

Although adjuvanted vaccine is the preferred choice for people aged 10 to 64 years, the Canadian unadjuvanted vaccine made by GSK may be made available to people aged 10 to 64 years with healthy immune systems because it is expected to provide a good immune response in this population.*

However, at this time, the H1N1 flu shot **with adjuvant** (Arepanrix™) continues to be the preferred option for use in:

- children between the ages of six months and under 10 years of age;
- adults 65 years of age and over; and
- people with weakened immune systems.

This is because preliminary data suggests that the vaccine without adjuvant is less effective in producing an immune response and preventing H1N1 flu in people in these groups.

***NOTE:** The Australian unadjuvanted vaccine (Panvax®) is currently only available for pregnant women.

Vaccine Efficacy

2. How effective is the pH1N1 influenza vaccine expected to be?

Like other influenza vaccines, both the adjuvanted and unadjuvanted pH1N1 influenza vaccines are expected to provide protection within two weeks of being vaccinated. In a study of healthy adults between 18 and 60 years of age the pH1N1 influenza vaccine without adjuvant produced protective levels of antibody (immunity) in 94 per cent of people. The same study showed that the H1N1 flu shot with adjuvant produced protective levels of antibody in 98 to 100 per cent of people participating in the study. So both the H1N1 flu vaccine with adjuvant and the vaccine without adjuvant provide a strong immune response in over 90 per cent of people who received it.

Although studies are ongoing with the unadjuvanted pH1N1 influenza vaccine, the immune response in children, adolescents and people over 60 years of age has not been evaluated. Based on preliminary studies, young children and the elderly are expected to have a better immune response from the adjuvanted vaccine.

3. What is the duration of protection?

Seasonal influenza vaccine usually provides protection from the specific strains included in it for about six months or longer. Because the pH1N1 influenza vaccine is new, the duration of protection is currently unknown.

4. Is protection immediate following vaccination?

The vaccine will take up to two weeks to become fully effective.

5. Can people still get pH1N1 influenza if they have had the pH1N1 influenza vaccine?

Yes. Since it takes about two weeks to build protective antibodies after receiving the vaccine, it is possible for someone to become infected in that time period. No vaccine is 100 per cent effective; it is expected that some people may not develop sufficient immunity to prevent infection with pH1N1 influenza.

There is currently limited data available on adverse events following immunization (AEFI) experienced by people who become infected with pH1N1 after receiving the pH1N1 vaccine. However, the Public Health Agency of Canada has advised that there are no expected adverse effects if pH1N1 vaccine is given to people with prior pH1N1 infection.

Vaccine Safety

6. How is the vaccine cultured and what is in the vaccine? *UPDATED

Both the adjuvanted and unadjuvanted pH1N1 influenza vaccines have been developed using the same approach that is used every year (in egg cultures) to develop seasonal influenza vaccine.

The adjuvanted vaccine (Arepanrix™) contains (per 0.5mL adult dose):

- 3.75 micrograms of viral antigen
- AS03 adjuvant- squalene (a natural protein extracted from shark livers) – α tocopherol (vitamin E), and polysorbate 80 (commonly found in ice cream and cosmetics)
- 5 micrograms of thimerosal (organic mercury)

Other contents in the adjuvanted vaccine include trace amounts of formaldehyde (used to inactivate the virus), sodium deoxycholate, sucrose, sodium chloride, disodium hydrogen phosphate, potassium dihydrogen phosphate, potassium chloride, and water for injections. For more information on the specific ingredients in this vaccine, please refer to the product leaflet available at: <http://www.hc-sc.gc.ca/dhp-mps/prodpharma/legislation/interimorders-arretesurgence/prodinfo-vaccin-eng.php>

The Australian unadjuvanted vaccine (Panvax®) contains (per 0.5mL adult dose)

- 15 micrograms of viral antigen
- Trace amounts of egg and chicken protein, beta-propiolactone (used to inactivate the virus) and sodium taurodeoxycholate (used to split the virus)
- Antibiotics: neomycin and polymyxin B sulfate

Other contents in the Australian unadjuvanted vaccine include ovalbumin, sucrose sodium chloride, sodium phosphate – dibasic anhydrous, sodium phosphate – monobasic, potassium chloride, potassium phosphate – monobasic, calcium chloride and thimerosal 50 ug (for multi-dose vial presentation only). For information on the specific ingredients in this unadjuvanted vaccine, please see the product leaflet.

The Canadian GSK unadjuvanted Vaccine* contains (per 0.5 mL adult dose)

- 15 micrograms of viral antigen
- Trace amounts of egg proteins, formaldehyde, sodium deoxycholate sucrose and thimerosal 50 micrograms (for multi-dose vial presentation only).

Other contents include sodium chloride, potassium chloride, sodium phosphate dibasic heptahydrate, potassium phosphate monobasic and water for injection.

**Note: Antibiotics are not used in the manufacture of this vaccine.*

7. What are the side effects?

Frequency	Adjuvanted Vaccine	Australian Unadjuvanted Vaccine (Panvax®)	GSK Canadian Unadjuvanted Vaccine
Very Common	<ul style="list-style-type: none"> • headache • tiredness • pain • a hard lump at the injection site • joint pain 	<ul style="list-style-type: none"> • tenderness and/or pain at the injection site • headache • muscle aches • malaise 	N/A
Common	<ul style="list-style-type: none"> • warmth • itching or bruising at the injection site • increased sweating/shivering • flu-like symptoms • swollen glands in the neck, armpit or groin. 	<ul style="list-style-type: none"> • hardening at the injection site; • fever • nausea • chills. 	<ul style="list-style-type: none"> • pain, reddening or swelling at the injection site; • feeling unwell; • fever; • swelling of the lymph glands.
Uncommon	<ul style="list-style-type: none"> • tingling or numbness of the hands or feet • sleepiness • sleeplessness • dizziness • diarrhea • vomiting • stomach pain • feeling sick • itching • rash 	<ul style="list-style-type: none"> • none reported 	(less common) <ul style="list-style-type: none"> • headache; • shivering; • sweating; • tiredness; • muscle and/or joint aches.

Almost everyone will experience some local pain, and many people develop redness, tenderness, or swelling where the needle was given with immunization. This reflects the body's normal immune response to the vaccine. As with any immunization, occasionally, mild fever, chills, headache and tiredness can occur. Reactions usually resolve on their own in one to two days without treatment. If they persist, people should be advised to consult their health care provider.

Severe allergic reactions (anaphylaxis -which can be life-threatening) have also been known to occur in approximately one in every one million vaccinations in Canada. Symptoms of anaphylactic shock include: hives, wheezing, difficulty breathing, swelling of the face, mouth, or throat, and low blood pressure or loss of consciousness. **Individuals who experience severe adverse reactions should be advised to seek immediate medical attention.**

Oculorespiratory syndrome (ORS) and Guillain-Barré syndrome (GBS) are two uncommon syndromes associated with some influenza vaccines – please refer to appropriate questions for a description of these (see below).

8. Will adverse events following immunization (AEFI) be monitored?

Yes. The Province of Manitoba will follow its usual procedure for monitoring adverse reactions to a vaccine. Immunization providers have been reminded of the importance of notifying adverse events following immunization.

- Adverse events following immunization (AEFI) must be reported under *The Public Health Act*.
- Serious adverse events such as anaphylaxis and others noted in the AEFI *Appendix A* document at: <http://www.gov.mb.ca/health/publichealth/sri/index.html> must be reported within 24 hours to the regional Medical Officer of Health (MOH) by phone and by faxing the completed AEFI form.
- Practitioners who become aware of other reportable adverse events, as listed in AEFI *Appendix A* should report them within seven days by completing and faxing the AEFI form to the regional MOH.
- Manitoba Health and Healthy Living reports AEFI to the Public Health Agency of Canada.

Additionally, Health Links-Info Santé can be used by the public to inquire about adverse events following immunization with the pH1N1 influenza vaccine. Health Links-Info Santé will triage, manage and refer calls for appropriate public health and medical follow up.

9. How can people treat less severe reactions to the vaccine?

People can treat by:

- Applying a cool moist towel where the needle was given, if localized pain, redness or swelling occurs.
- Using Acetaminophen (ex. Tylenol®) if a fever (over 38°C/100.4°F) and/or local pain develops.

Note: ASA (Aspirin®) is not recommended for people under 18 years of age.

10. Can a child receive a combination of adjuvanted and unadjuvanted pH1N1 influenza vaccine?

No. Whatever formulation is given to a child (aged six months to nine years of age) in the first injection (adjuvanted or unadjuvanted) should be the same formulation administered in the second dose after 21 days.

11. Can someone get pH1N1 influenza from the vaccine?

The virus in the vaccine has been killed, so it cannot give someone pH1N1 influenza. The immune system responds to the vaccine antigens by producing protective antibodies, which attack and neutralize the live virus if it enters the body.

12. Does the vaccine contain mercury? ***UPDATED**

The pH1N1 influenza vaccines (adjuvanted and unadjuvanted) contain thimerosal (organic mercury), which is a preservative that prevents the vaccine from becoming contaminated with harmful bacteria. This is especially important for multi-dose vials which may not be used immediately after reconstitution or after first puncture.

The amount of mercury present in one injection of either the adjuvanted (5 micrograms of thimerosal) or the unadjuvanted (50 micrograms of thimerosal) pH1N1 influenza vaccines is lower than the accepted daily allowable standard of usual environmental exposures

(assumed to occur over many successive days). Fifty micrograms remains within the daily limit recommended for environmental exposure to mercury, which is significantly less mercury in the vaccine than you would find in a can of tuna fish.

The most important fact to remember about thimerosal is that on rare occasions it can cause allergic reactions. Therefore, anyone known to have a severe life-threatening allergy to thimerosal should not receive this vaccine.

13. Can the vaccine be given to someone who has had oculorespiratory syndrome (ORS) after receiving seasonal influenza vaccine in the past?

During the 2000-2001 influenza season, an increased number of reports of vaccine-associated symptoms and signs described as oculorespiratory syndrome (ORS) were noted. ORS was defined as onset of bilateral red eyes and /or respiratory symptoms (cough, wheeze, chest tightness, difficulty breathing, difficulty swallowing, hoarseness, or sore throat) and/or facial swelling occurring within 24 hours of receiving seasonal influenza immunization.

About five to 34 per cent of people who have experienced ORS in the past may have a recurrence after seasonal influenza vaccine, but the recurrent episodes are usually milder. However, those who have had a recurrence of ORS upon revaccination have not necessarily experienced further episodes with future influenza vaccinations. There is no evidence to suggest that ORS will be a concern following immunization with pH1N1 vaccine. Therefore, people who have experienced ORS following receipt of seasonal influenza vaccine may be immunized with pH1N1 vaccine, unless the ORS was severe enough to result in hospitalization.

14. Can the vaccine be given to someone who has had Guillain-Barré syndrome (GBS) in the past?

Rare side effects of seasonal influenza vaccines have included Guillain-Barré syndrome (GBS), which is a form of paralysis that may be temporary or permanent. This has been estimated to occur at one in every one million vaccinations. People who have had GBS within eight weeks of receiving any vaccine should not receive the pH1N1 influenza vaccine.

15. Can influenza vaccination cause chronic diseases? *NEW

Current evidence does not indicate that influenza vaccines (seasonal or pH1N1 influenza), either induce or aggravate chronic diseases in vaccine recipients. Careful assessment is required to clarify if adverse events that occur after vaccination are actually caused by an influenza vaccination.

Allergies

16. What about people with allergies - what precautions should they take?

Allergy to a substance in the vaccine or a previous anaphylactic (severe allergy) reaction to the influenza vaccine is a contraindication to vaccination with pH1N1 influenza vaccine. People who have had a severe allergic reaction to other vaccines with the same components should also not receive the pH1N1 influenza vaccine.

Severe allergic reactions (anaphylaxis -which can be life-threatening) have also been known to occur in approximately one in every one million vaccinations in Canada. Symptoms of anaphylactic shock include: hives, wheezing, difficulty breathing, swelling of the face, mouth, or throat, and low blood pressure or loss of consciousness. **Individuals who experience severe allergic reactions should be advised to seek immediate medical attention.**

All people receiving pH1N1 influenza vaccine at mass immunization clinics should be requested to remain at the clinic site for 15 minutes after the immunization to monitor for any signs of an allergic reaction.

17. What about people with allergies to eggs? *UPDATED

People with known IgE-mediated hypersensitivity to eggs, manifested as hives, swelling of the mouth and throat, difficulty breathing, hypotension or shock, should not be routinely vaccinated with pH1N1 vaccine. They should be evaluated by an allergy specialist, as vaccination may be possible after careful evaluation, skin testing and graded challenge or desensitization. If such an evaluation is not possible, the risk of an allergic reaction to the vaccine must be weighed against the risk of pH1N1 influenza disease.

The Canadian Society of Allergy and Clinical Immunology has provided a statement on the administration of pH1N1 and seasonal influenza vaccine to egg allergic individuals, available at: http://www.csaci.ca/include/files/CSACI_H1N1_Statement.pdf

18. Can the vaccine be given to someone who gets red, puffy eyes from thimerosal in contact lens solution or a local reaction to it?

Anaphylactic reactions (hives, wheezing, difficulty breathing, swelling of the face, mouth, or throat, and low blood pressure or loss of consciousness) to thimerosal are a contraindication to the pH1N1 influenza vaccine.

A history of anaphylaxis to a vaccine containing thimerosal is also a contraindication to the vaccine, unless allergy testing has revealed another component of the vaccine that was responsible for the anaphylaxis, not thimerosal. Local reactions to thimerosal (ex. puffy eyes, skin rash) are not a contraindication to the vaccine. People should be advised to wait for 15 minutes after immunization to observe for any signs of an allergic reaction.

19. Can the vaccine be given to someone who has an anaphylactic reaction to latex?

Since the rubber stopper used for the pH1N1 influenza vaccines does not contain latex, latex allergy is not a contraindication to receipt of these vaccines.

20. Is an allergy to fish a reason not to receive the vaccine?

Individuals with allergies to fish can receive the pH1N1 influenza vaccine. Although the adjuvanted vaccine contains squalene (shark liver oil), the squalene component which is extracted from shark liver oil is highly purified and part of the purification process involves a distillation step which destroys potentially allergenic proteins.

Vaccine Administration

21. The following people should not receive the pH1N1 influenza adjuvanted vaccine:

- Anyone who has serious acute febrile illness should not be vaccinated until their symptoms have abated. Those with mild, non-serious febrile illness (such as mild upper respiratory tract infections) may be given the vaccine.
- Infants under six months of age (not licensed for this use);
- People who are hypersensitive (allergic) to eggs (ex. hives, swelling of mouth and/or throat or breathing difficulty)--*in some circumstances the vaccine may be given under close medical supervision;*

- People who have had a previous severe allergic reaction to any influenza vaccine or any substance that is in the vaccine;
- People who have had Guillain-Barré Syndrome within eight weeks of receiving an influenza vaccine;
- People who have had a lab-confirmed case of pH1N1 influenza.

People who have had a severe reaction to previous vaccinations are advised to consult a health professional before receiving the vaccine.

22. The following people should not receive the Australian (Panvax®) pH1N1 influenza unadjuvanted vaccine: *UPDATED

- Anyone who has serious acute febrile illness should not be vaccinated until their symptoms have abated. Those with mild, non-serious febrile illness (such as mild upper respiratory tract infections) may be given the vaccine;
- Anyone who is not pregnant at the time of vaccination (not licensed in Canada for others);
- People who are hypersensitive (allergic) to eggs or chicken proteins (ex. hives, swelling of mouth and/or throat or breathing difficulty)--*in some circumstances the vaccine may be given under close medical supervision*;
- People who have had a previous severe allergic reaction to any influenza vaccine or any substance that is in the vaccine;
- People who have had Guillain-Barré Syndrome within eight weeks of receiving an influenza vaccine;
- People who have had a lab-confirmed case of pandemic pH1N1 influenza.

People who have had a severe reaction to previous vaccinations are advised to consult a health professional before receiving the vaccine.

23. The following people should not receive the GSK pH1N1 influenza unadjuvanted vaccine: *NEW

- Anyone who has serious acute febrile illness should not be vaccinated until their symptoms have abated. Those with mild, non-serious febrile illness (such as mild upper respiratory tract infections) may be given the vaccine;
- Infants under six months of age;
- People who are hypersensitive (allergic) to eggs or chicken proteins (ex. hives, swelling of mouth and/or throat or breathing difficulty)--*in some circumstances the vaccine may be given under close medical supervision*;
- People who have had a previous severe allergic reaction to any influenza vaccine or any substance that is in the vaccine;
- People who have had Guillain-Barré Syndrome within eight weeks of receiving any vaccine;
- People who have had a lab-confirmed case of pandemic pH1N1 influenza.

People who have had a severe reaction to previous vaccinations are advised to consult a health professional before receiving the vaccine.

24. Should the vaccine with adjuvant be used for pregnant women? *UPDATED

It is estimated that pregnancy increases the risk of hospitalization and of severe outcomes (ICU admissions or deaths) from pH1N1 by four to five fold--although the absolute risk remains small. The risk appears to be related to the stage of pregnancy, in that over two-thirds of hospitalized cases occur in the third trimester. It is strongly recommended that pregnant women be immunized with a pH1N1 vaccine. It is important that informed consent be obtained. As part of the informed consent process, women are encouraged to discuss the potential risks and benefits of immunization with their health care provider.

Since there has been no safety data published for the use of the adjuvanted vaccine in pregnant women, the Public Health Agency of Canada has recommended that pregnant women at any stage of their pregnancy should receive one dose of the unadjuvanted pH1N1 influenza vaccine.

The agency has also advised that if the unadjuvanted is not easily available and pH1N1 influenza rates are high or increasing, women who are at 20 weeks gestation or greater or women at any stage of pregnancy who have a chronic medical condition (like asthma or diabetes) should be offered one dose of the pH1N1 influenza vaccine with adjuvant. Women who are less than 20 weeks pregnant and are healthy can wait to get the unadjuvanted.

Women who think they may be pregnant or who are trying to conceive and do not know if they are pregnant, should follow the Public Health Agency of Canada's recommendations for women who are less than 20 weeks pregnant.

Pregnant women have been advised to talk to their health care provider about which pH1N1 vaccine is best for them.

25. Should the vaccine with adjuvant be used for women who are breastfeeding?

Women who are breastfeeding should receive the adjuvanted pH1N1 influenza vaccine in order to protect their health and the health of their infant.

26. Should the vaccine with adjuvant be used for children? *UPDATED

The pH1N1 influenza vaccine with adjuvant has been recommended as the preferred pH1N1 influenza vaccine for children because it is expected to be more effective in boosting the immune system and preventing pH1N1 influenza infection. Parents/guardians who are concerned about using the adjuvanted vaccine for their young children, are advised to talk to their health care provider to find out more.

27. Can Solid Organ Transplant (SOT) clients be vaccinated?

The American Society Transplantation and Manitoba Health and Healthy Living are recommending immunization with seasonal influenza and adjuvanted pH1N1 influenza vaccine for Solid Organ Transplant (SOT) individuals. Immunization providers are reminded that prior to administering an immunizing agent, they are to obtain and document informed consent.

For more information please visit: http://www.a-s-t.org/files/pdf/ast_h1n1_guidance.pdf

28. What are the dosing recommendations for the pH1N1 influenza vaccine? *NEW

AGE CATEGORY	DOSING RECOMMENDATION
0-5 months	pH1N1 influenza vaccine not authorized for use
6 months to less than 3 years	<u>Adjuvanted</u> * - Two 0.25 mL doses of vaccine The second dose should be given at least 21 days after the first dose.
3 to 9 years - <i>Healthy children</i>	<u>Adjuvanted</u> * - One 0.25 mL dose of vaccine, for now. Note: This recommendation may be updated as more information becomes available.
3 to 9 years - <i>Children with chronic medical conditions</i>	<u>Adjuvanted</u> * - Two 0.25 mL/doses of vaccine The second dose should be given at least 21 days after the first dose.
10 to 64 years – <i>with healthy immune systems</i>	<u>Either adjuvanted* or unadjuvanted**</u> - One 0.5 mL dose of vaccine Note: <u>Unadjuvanted**</u> vaccine may be used if <u>adjuvanted*</u> vaccine is not available or if supply is low.
10 to 64 years - <i>with weakened immune systems</i>	<u>Adjuvanted</u> * - One 0.5 mL dose of vaccine.
65 years and over	<u>Adjuvanted</u> * - One 0.5 mL dose of vaccine
Pregnant women	<u>Unadjuvanted***</u> - One 0.5 mL dose of vaccine. Note: <u>Adjuvanted*</u> vaccine should be offered if: <ul style="list-style-type: none"> • at least 20 weeks pregnant or at any stage of pregnancy with a severe chronic disease <u>and</u> • <u>unadjuvanted***</u> vaccine is not available <u>and</u> • rates of pH1N1 influenza are high or increasing in the community.

* Adjuvanted pH1N1 influenza vaccine in Canada is Arepanrix™

** Unadjuvanted pH1N1 GSK's Influenza A (H1N1) 2009 Pandemic Monovalent Vaccine (Without Adjuvant) only.

*** Both unadjuvanted pH1N1 influenza vaccines (Panvax® and GSK's Influenza A (H1N1) 2009 Pandemic Monovalent Vaccine- *Without Adjuvant*) are licensed for use in pregnant women in Canada.

29. How is the pH1N1 influenza vaccine given? *UPDATED

The pH1N1 influenza vaccine should be given with a needle into the muscle of the upper arm. For infants (six to 11 months), it should be given in the upper thigh. It can be given anytime before, at the same time as (in a separate limb), or anytime after the seasonal influenza shot or any other vaccination.

30. Can people receive both pH1N1 influenza vaccine and seasonal influenza vaccine at the same time?

Yes. Pandemic H1N1 influenza vaccine may be given concurrently with seasonal influenza vaccine and other vaccines. If not given concurrently, there is no minimum interval required between seasonal influenza and pH1N1 influenza vaccine. If co-administered, injections should be given in separate limbs.

31. Can people receive both pH1N1 influenza vaccine and pneumococcal (pneumonia) vaccine at the same time?

Yes, both pH1N1 influenza and pneumococcal polysaccharide vaccines can be co-administered, preferably in separate arms. If all three vaccines need to be administered (seasonal influenza, pH1N1, and pneumococcal) at the same visit, it is recommended that seasonal influenza and pneumococcal vaccines be administered in the same limb, with pH1N1 influenza vaccine administered in its own separate site. Note that pneumococcal polysaccharide vaccine is generally given only once in a lifetime for people over the age of 65 or with certain conditions that put them at higher risk. A second dose is only recommended for those at highest risk of infection.

32. Can people with chronic conditions receive the pH1N1 influenza vaccine?

Yes. The Public Health Agency of Canada has advised that people between the ages of six months and 65 years who have the following chronic health conditions are among those who would be expected to benefit most from vaccination with the adjuvanted pH1N1 vaccine:

- cardiac or pulmonary disorders (including bronchopulmonary dysplasia, cystic fibrosis and asthma);
- diabetes mellitus and other metabolic diseases;
- cancer; immunodeficiency and immunosuppression (due to underlying disease and/or therapy);
- renal disease; anemia or hemoglobinopathy;
- conditions that compromise the management of respiratory secretions and are associated with an increased risk of aspiration.

This category also includes children and adolescents (aged six months to 18 years) with conditions treated for long periods with acetylsalicylic acid because of the potential risk of Reye syndrome associated with influenza.

33. Is the pH1N1 influenza vaccine recommended for people with autoimmune disorders like MS and lupus? *NEW

People with autoimmune disorders are often at increased risk of infections. Influenza vaccination is generally considered safe and recommended for people with autoimmune disorders and there is no evidence that adjuvanted influenza vaccine is less safe than unadjuvanted vaccine.

Adjuvanted pH1N1 influenza vaccine is more immunogenic than the unadjuvanted pH1N1 vaccine, which is an important consideration for those who have a weakened immune

system due to autoimmune disease or the medications used to treat it. However, the adjuvanted influenza vaccine used in Canada has not yet been studied in people with autoimmune disorders.

It is recommended that people with autoimmune disorders get the adjuvanted pH1N1 influenza shot. People with autoimmune disorders who are concerned about getting the pH1N1 influenza shot or who are currently experiencing a flare-up of disease should talk to their doctor about the risks and benefits of getting the shot.

34. What about people who are immunocompromised or who are on immunosuppressive drugs?

People of any age whose immune system is weak should have the pH1N1 influenza vaccine but the vaccine may be less effective than in people who have normally functioning immune systems. The household contacts of immunocompromised people should also be immunized to help prevent the spread to someone who is immunocompromised.

35. What about people with a bleeding disorder? *UPDATED

People who have a bleeding disorder can receive the pH1N1 vaccine. However, they should take the following precautions:

- People who receive treatment of their bleeding disorder, should get the pH1N1 flu shot after treatment and on the same day;
- Ensure that the health care provider giving the vaccine uses the smallest gauge needle possible that is of appropriate length;
- After vaccination, apply firm pressure to the injection site for at least five minutes;
- If there is significant swelling or concerns regarding possible bleeding after receiving the vaccine, call the Bleeding Disorder Clinic (787-2465) for an assessment regarding the need for additional treatment.

36. If someone was prescribed antivirals can they still get the pH1N1 influenza vaccine?

Antivirals are not a contraindication to the pH1N1 influenza vaccine. Health care providers should assess why the individual was on antiviral medication. If the individual had a lab-confirmed pH1N1 case, then the vaccine is not recommended. However, there have been no reports of increased risk of adverse events or harm if pH1N1 vaccine is given to people with prior pH1N1 infection.

37. Should individuals who have had a lab-confirmed case of pH1N1 influenza receive the pH1N1 influenza vaccine?

No. In most cases, when a person is infected with an influenza virus and recovers, they develop antibodies that provide them with immunity to that particular virus. The vaccine is not recommended for persons who have had laboratory-confirmed pH1N1 infection. However, there have been no reports of increased risk of adverse events or harm if pH1N1 influenza vaccine is given to people with prior pH1N1 infection.

Where can I get more information?

For the most up to date information on pH1N1 influenza in Manitoba, please visit the Manitoba government flu website at: www.manitoba.ca/flu

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