

Dear Clients of the Midwifery Group:

Due to the current confusion around the H1N1 vaccine for pregnant women, we thought it would be useful to provide a summary of the information to date for our clients.

Pregnant women have a choice to make if they are over 20 weeks gestation:

*Accept the Adjuvanted vaccine available now OR  
Wait for the Non-adjuvanted vaccine available as early as next week from Australian  
manufacturer (CSL Ltd.) or Mid-November from Canadian Manufacturer (GlaxoSmithKline Inc.)*

\*The adjuvanted vaccine is only recommended for pregnant women *less than* 20 weeks gestation with risk conditions. For example, you work in a health care setting or have an underlying health condition (i.e. asthma) that would put you more at risk for severe illness. If you don't fit into these categories and are *less than* 20 weeks pregnant the non-adjuvanted vaccine is the recommended choice.

The main take home message is that both vaccines are considered safe for pregnant woman and recommended by Canadian Experts. The risk of contracting a severe case of H1N1 is considered to outweigh any potential risk of either of the vaccines. Of the pregnant women who contract H1N1 this season, 1% are expected to become severely ill.

#### **Adjuvanted Vaccine – Arepanrix®**

This vaccine contains an added substance called AS03 and is made up of: Squalene, Alpha-tocopherol (vitamin E), Polysorbate 80. AS03 is approved in 30 countries.

*Squalene* is a naturally occurring substance found in plants, animals, and humans. It is manufactured in the liver of every human body. It is a precursor for cholesterol and steroid hormones and circulates in our bloodstream. It is also found in a variety of foods, cosmetics, over-the-counter medications, and health supplements. Squalene is commercially extracted from fish oil, and in particular shark liver oil. Squalene is used in pharmaceutical products and vaccines is purified from this source. It is present in MF59, an adjuvant used in Fludax™, an influenza vaccine produced by Novartis approved in 14 European countries for use in 65+ year olds, of which more than 47 million doses have been distributed since 1997 with no safety concerns identified. Since the squalene contained in AS03 is designed to improve the immune response to the vaccine, there are some theoretical concerns that it may provoke a hyperactive immune response (autoimmune disorders). Animal studies have shown that arthritis can result when undiluted squalene is injected in large amounts into rats' tails or joints. This has not been observed in clinical trials of human subjects. As well, another squalene containing adjuvant, MF59, has been used in >40 million recipients of the seasonal influenza vaccine called Fludax® (Novartis®) marketed in Europe and approved for use in elderly individuals, without observed excess rates of autoimmune diseases.

*Polysorbate 80* is an emulsifier that stabilizes the adjuvant. It is used widely in vaccines, medicinal products, and foods.

Pros:

It is available now.

It only requires one dose.

It has lower levels of thimerosal 5 ug than the non-adjuvanted by GlaxoSmithKline Inc.

It is more likely to provide proper levels of immunity

Faster induction of immune response

Better immune response with less antigen/protein (3.75 g )

May provide some cross protection in case the virus changes ("drifts")

Cons:

There is less research in pregnant women

It is more likely to cause a flu-like response: sore muscles, fatigue, headache, etc.

### **Non-Adjuvanted Vaccine – Influenza A(H1N1) 2009 Monovalent vaccine**

Information below refers to the GlaxoSmithKline product and NOT the vaccine that has been special ordered from Australia and is supposed to be available next week.

Pros:

It is considered the safest option and recommended for women under 20 weeks gestation.

It is less likely to cause flu-like side effects: sore muscles, fatigue, headache, etc.

Cons:

It contains more thimerosal (50 ug) However, both vaccines are considered to have less mercury than eating a can of tuna fish.

It contains more of the antigen/protein that makes up the vaccine (15 g)

It will require 2 doses 21 days apart to create a full immune response.

*Talk to your health care provider before accepting any vaccine if you have a:*

History of anaphylactic reaction to a previous dose of influenza vaccine or to the following vaccine components: eggs, formaldehyde, sodium deoxycholate or thimerosal.

The decision about the choice of vaccine is individual and should be based on informed decision making with the best evidence available at the time.

Regardless of your vaccination decision, please remember to undertake the following preventative measures:

- 1) Stay home if you (or someone in your family) are sick and contact us at 604-945-2459 to let us know and to discuss treatment recommendations example: initiate a Rx for Tamiflu. Please phone your midwife (TMG - 604-877-7766) or GP'S office prior to arriving for an appt with any cold or flu like symptoms.
- 2) Cough/sneeze into a tissue, discard tissue and wash hands.
- 3) Eat well and sleep well.
- 4) Take Vitamin C 500mg with zinc.
- 5) Drink lots of warm fluids as this aids hydration and flushes microbes into the stomach that usually collect and multiply at the back of the throat. In the stomach these cannot multiply.
- 6) Gargle with salt water once a day (does the same as number.

7) Wash your nostrils out with warm salt water once a day as this flushes the microbes out of your nose and reduces their proliferation. You can either use a q-tip or simply squirt warm water up your nose with a syringe or neti pot.

We hope you find this information helpful.

Your Midwives from The Midwifery Group,

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#### References:

Influenza A (H1N1) 2009 Monovalent vaccine  
Women's Health: Practice and Policy Series  
September 22, 2009  
Deborah M. Money, MD, FRCSC  
Associate Professor, Dept. Obstetrics & Gynecology, UBC  
Executive Director, Women's Health Research Institute

BC Center for Disease Control  
pH1N1 2009 Pandemic Vaccine: Recommendations for use  
Instructional slide set for British Columbia Immunization Service Providers  
available @ <http://www.immunizebc.ca/ImmForHP/default.htm>  
Current as of: October 21, 20

Society of Obstetricians and Gynecologists of Canada  
October 23<sup>rd</sup> 2009 Press Release

Influenza 2009/10 for Health Care Providers  
Seasonal and Pandemic Vaccines  
Q and A # 1  
October 21, 2009

Note: this document will be updated as further information becomes available @  
<http://www.immunizebc.ca/ImmForHP/default.htm>

<http://www.news-medical.net/news/20091023/Adjuvanted-and-non-adjuvanted-H1N1-vaccines-safe-for-pregnant-women-say-Canadian-experts.aspx>