

# Vaccination Resource Package

## FOR PHARMACISTS

*Published by the Pharmaceutical Services Division, B.C. Ministry of Health Services*

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# 1. Background Information

Notice: Information in this document is current as of the "Last revised" date indicated at the bottom of the cover page. For more recent information, please consult the relevant organization.

This document is intended as a resource for British Columbia pharmacists who will provide vaccinations during and following the 2009 pandemic. The information focuses on three vaccines:

- pandemic H1N1 vaccine
- seasonal influenza vaccine
- pneumococcal vaccine

The adjuvanted pandemic H1N1 vaccine Arepanrix® was approved by Health Canada on October 21, 2009, and was made available to British Columbians beginning October 26, 2009. Initial distribution to Health Authorities was based on population numbers in each region. The first individuals to be vaccinated were those at highest risk of suffering complications from pandemic H1N1 infection: individuals under 65 years of age with a chronic disease, pregnant women greater than 20 weeks gestation and individuals living in remote or isolated communities. Other risk groups were deferred until the following weeks of the vaccination program. A non-adjuvanted H1N1 vaccine, primarily for use in pregnant women, is expected to be available by mid November 2009. See Section 6 for detailed eligibility criteria.

The seasonal trivalent influenza vaccine was made available on October 13, 2009. It is recommended for people 65 years of age and older, people in residential care facilities, all persons with underlying chronic medical conditions over the age of 6 months and their household contacts, infants 6 months to two years of age and their household contacts. See Section 6 for detailed eligibility criteria. Pandemic H1N1 vaccine and seasonal trivalent influenza vaccine may be administered simultaneously to eligible patients.

Pneumococcal infections are a known complication of both seasonal and pandemic influenza. Pharmacists providing vaccinations during and following the 2009 pandemic should assess current pneumococcal vaccine status for those patients at risk of pneumococcal infection and provide the vaccine to eligible patients. Pneumococcal vaccine is strongly encouraged for individuals 65 years of age and older, as well as those less than 65 years old with chronic medical conditions. See Section 6 for detailed eligibility criteria.

**Pharmacists providing vaccinations should regularly review the following sites which summarize and update current vaccination information:**

- **Provincial Health Officer's H1N1 Flu Virus Information Web Page for Pharmacists** — provides updated information on antivirals, vaccines and other information related to H1N1 prevention and treatment. Ensure that you subscribe to be notified of substantive updates to the site: [www.hls.gov.bc.ca/pho/pharmh1n1.html](http://www.hls.gov.bc.ca/pho/pharmh1n1.html)
- **Provincial Health Officer's H1N1 Flu Virus Information Web Page for Physicians** — [www.hls.gov.bc.ca/pho/physh1n1.html](http://www.hls.gov.bc.ca/pho/physh1n1.html)
- **Immunize BC** – provides immunization-specific information which is updated as new information becomes available: [www.immunizebc.ca/ImmForHP](http://www.immunizebc.ca/ImmForHP)

The site has links to two documents that will be invaluable to pharmacist immunizers - make sure you have the updated version:

- **Influenza 2009-10 Seasonal and Pandemic Vaccine Q&A for Immunizers:** The answers to the most common questions you and your patients may have.
- **Training H1N1 Vaccine Slideshow for Immunizers:** Everything immunizers need to know about the pandemic H1N1 vaccine including reconstitution, supplies required, indications and contraindications, dosing, adjuvant details.
- **Public Health Agency of Canada Fight Flu site** — provides federal information including Canada-wide epidemiology and planning statistics: [www.phac-aspc.gc.ca/alert-alerte/h1n1/](http://www.phac-aspc.gc.ca/alert-alerte/h1n1/)
- **BC Centre for Disease Control** — provides up-to-date provincial information, epidemiology and links to other resources: [www.bccdc.ca](http://www.bccdc.ca)

## 2. Vaccine Ordering Procedures

### Ordering Vaccine

Pharmacists **authorized by the College of Pharmacists of British Columbia (CPBC)** to administer injections may order vaccine by telephone through the **Biological Products Monitor** in their Local Health Unit (LHU).

The current list of LHU telephone numbers is available on the Immunize BC website at [www.immunizebc.ca/NR/rdonlyres/E14E7B65-C7AD-41B8-8FC9-9B70C62D99A9/42302/BCHEALTHUNITS.doc](http://www.immunizebc.ca/NR/rdonlyres/E14E7B65-C7AD-41B8-8FC9-9B70C62D99A9/42302/BCHEALTHUNITS.doc).

*Procedures for vaccine pick-up may vary between LHUs and should be verified with your Biological Products Monitor.*

In most Health Authorities vaccine must be picked up in person and presentation of your CPBC "Authorization to Administer Injections" registration card will be required for the first pick up. The authorized pharmacist may be asked to sign a Private Provider Agreement at pick-up (see **Appendix A** for an example of a Private Provider Agreement). It is recommended that pharmacists budget at least half an hour for the initial visit to the LHU. Biological Products Monitors have been advised through the BCCDC that they will be contacted by pharmacists regarding vaccine supply.

During the initial phase of vaccine release, priority distribution will be to Public Health personnel and physicians. It is anticipated that **authorized** pharmacists who have contacted their LHU will receive vaccine after mid November 2009. Due to limited availability of H1N1 supplies, pharmacists may not receive all of their initial orders and are requested to exercise patience and understanding during times of uncertainty.

### 3. Maintaining Cold Chain

The importance of maintaining "cold chain" for vaccines was detailed in your Administration of Injections Training Program. In order to pick up your initial and all subsequent orders, the Local Health Unit will expect you to bring a cooler and icepack/gelpack(s) capable of maintaining temperatures within the desired range (2° to 8° C).

**Appendix B** lists a number of alternatives for acceptable coolers, including source, volume and approximate price.

Cold chain information is available from the BCCDC at [www.bccdc.ca/imm-vac/ForHealthProfessionals/ColdChainInfo.htm](http://www.bccdc.ca/imm-vac/ForHealthProfessionals/ColdChainInfo.htm). Resources for Community Vaccine Providers included in the BCCDC document are:

1. Vaccine Cold Chain Failure Incident Report
2. Handle Vaccines with Care
3. Packing an Insulated Cooler
4. How to Store Vaccines in the Refrigerator
5. What to do if the temperature is outside the 2° to 8° range
6. Temperature Form
7. Cold Chain Checklist

The refrigerator used to store biological products should have a device to monitor both the current temperature and the minimum/maximum temperatures.

Additional cold chain information is detailed in Section VI – Management of Biologicals of the BCCDC Communicable Disease Control Manual at:

[www.bccdc.ca/NR/rdonlyres/7F18DB7E-37E0-498C-A95D-7B707A700AFC/42411/SectionVI\\_ManagementofBiologicals\\_May\\_withcorrectl.pdf#details](http://www.bccdc.ca/NR/rdonlyres/7F18DB7E-37E0-498C-A95D-7B707A700AFC/42411/SectionVI_ManagementofBiologicals_May_withcorrectl.pdf#details)

## 4. Supplies for Injection and Anaphylaxis Management

Pharmacists must ensure that appropriate supplies are available before offering vaccinations. Shortages and back orders of some sizes of syringes, needles and other supplies have been reported.

- For detailed directions on mixing and administering the pandemic H1N1 (pH1N1) vaccine see the **Training H1N1 Slideshow for Immunizers** at: [www.immunizebc.ca/ImmForHP](http://www.immunizebc.ca/ImmForHP)
- For detailed audio and visual directions on preparing the H1N1 vaccine, watch the **YouTube video on mixing** available at: [www.youtube.com/user/VCHCDC#p/u/0/abtL-Wplzfg](http://www.youtube.com/user/VCHCDC#p/u/0/abtL-Wplzfg)

### Supplies for Injection

The following supplies are required for mixing and injecting a 10 dose vial of adjuvanted pH1N1 vaccine:

For mixing adjuvant and antigen	<ul style="list-style-type: none"> <li>• 1 x 5 mL or 10 mL syringe (depending on local availability). If using a 3mL syringe (not recommended), use care to avoid pulling out plunger.</li> <li>• 1 x 1 ½", 20-21 gauge needle</li> </ul>
For administering vaccine to patients 10 years and older (0.5 mL dose)	<ul style="list-style-type: none"> <li>• 10 x 3 mL syringes</li> <li>• 10 x 1" - 1 ½ ", 25 gauge needles (may need 1" needle for patients with low muscle mass)</li> </ul>
For administering vaccine to patients 5 to 10 years old (0.25 mL dose)	<ul style="list-style-type: none"> <li>• may use 1 mL syringes for administration</li> <li>• 1", 25 gauge needles</li> </ul>
For injecting each dose of seasonal influenza vaccine if you are not using a pre-filled syringe format of the vaccine	<ul style="list-style-type: none"> <li>• 1 x 3 mL syringe</li> <li>• 1 x 1" to 1 ½ ", 25 gauge needle (may need 1" needle for children and patients with low muscle mass)</li> </ul>
For injecting each dose of Pneumococcal Polysaccharide Vaccine (pre-filled syringe)	<ul style="list-style-type: none"> <li>• 1 x 25 gauge needle</li> </ul>

## Supplies for Anaphylaxis

Pharmacists should also ensure they have supplies at hand to manage potential anaphylactic reactions to vaccinations and should keep a copy of the protocol for managing anaphylactic reactions readily available.

- Supplies include 2 vials of diphenhydramine 50 mg/mL solution and 4 ampules of epinephrine 1:1000 or epinephrine self-injector (Epipen® or Twinject™- for use in individuals > 6 yrs of age) as well as required needles and syringes as outlined in Section 9.0 of the BCCDC guidelines for the management of anaphylaxis.
  - Expiry dates on supplies should be reviewed regularly.
- See the BCCDC guidelines for the management of anaphylaxis (protocol is on pages 11-12) at [www.bccdc.ca/NR/rdonlyres/52EA275F-0791-4164-ABA9-07F0183FF103/0/Epid\\_GF\\_Epid\\_CD\\_Manual\\_SectionV\\_Anaphylaxis\\_June.pdf](http://www.bccdc.ca/NR/rdonlyres/52EA275F-0791-4164-ABA9-07F0183FF103/0/Epid_GF_Epid_CD_Manual_SectionV_Anaphylaxis_June.pdf)
- For details on contraindications to the vaccine see slide 12 and 13 of the BCCDC Instructional slide set for British Columbia Immunization Service Providers at <http://www.immunizebc.ca/NR/rdonlyres/E14E7B65-C7AD-41B8-8FC9-9B70C62D99A9/42474/H1N1slidesetforBCHCWsOct2309.pdf>

## 5. Informed Consent

Follow the steps outlined in your training program to obtain informed consent including:

- determining authority and capability to give consent;
- providing name of injection/immunization;
- indication (disease being prevented);
- benefits and risks (expected reactions, contraindications, usual and rare side effects, risks of not being vaccinated);
- rationale for observation period;
- contact information for follow-up or emergency (family physician, next of kin); and,
- confirmation of understanding of consent.

A copy of the appropriate HealthLink BC HealthFile document(s) should be provided to each patient as part of the consent process. The main Health Link site is at [www.healthlinkbc.ca](http://www.healthlinkbc.ca).

### HealthLink files for specific vaccines (current as of November 1, 2009)

- Pandemic H1N1 influenza vaccine – [www.healthlinkbc.ca/healthfiles/pdf/hfile108b.pdf](http://www.healthlinkbc.ca/healthfiles/pdf/hfile108b.pdf)
- Seasonal influenza vaccine – [www.healthlinkbc.ca/healthfiles/pdf/hfile12d.pdf](http://www.healthlinkbc.ca/healthfiles/pdf/hfile12d.pdf)
- Pneumococcal polysaccharide vaccine – [www.healthlinkbc.ca/healthfiles/pdf/hfile62b.pdf](http://www.healthlinkbc.ca/healthfiles/pdf/hfile62b.pdf)

HealthLink files are updated frequently, so be sure to return to the site regularly for updated information.

If there is concern that an adult is not capable of giving consent, written consent from their representative may be required. Ideally, written consent from the “guardian or committee/representative/temporary substitute decision maker” for the client would sign the consent in advance and the form would be brought to the immunization clinic with the patient.

### **Consent forms**

- Pandemic H1N1 influenza vaccine — [www.bccdc.ca/NR/rdonlyres/74CDD0BC-27C0-4293-8375-2C6239858332/0/pandemic\\_consent\\_form.pdf](http://www.bccdc.ca/NR/rdonlyres/74CDD0BC-27C0-4293-8375-2C6239858332/0/pandemic_consent_form.pdf)
- Seasonal influenza vaccine — [www.bccdc.ca/NR/rdonlyres/A170D2D1-9515-479B-93D8-21B23E9BFDFB/0/seasonal\\_flu\\_consent\\_form.pdf](http://www.bccdc.ca/NR/rdonlyres/A170D2D1-9515-479B-93D8-21B23E9BFDFB/0/seasonal_flu_consent_form.pdf)
- Pneumococcal vaccine — [www.bccdc.ca/NR/rdonlyres/CBC9C151-893F-407A-9C89-396DB71430FA/0/pneumococcal\\_consent\\_form.pdf](http://www.bccdc.ca/NR/rdonlyres/CBC9C151-893F-407A-9C89-396DB71430FA/0/pneumococcal_consent_form.pdf)

## **6. Vaccine Eligibility Criteria**

### **H1N1 Vaccine**

Up-to-date eligibility criteria for all vaccines are available at: [www.bccdc.ca/dis-cond/comm-manual/CDManualChap2.htm](http://www.bccdc.ca/dis-cond/comm-manual/CDManualChap2.htm)

All British Columbians are eligible for immunization with the pandemic H1N1 vaccine. In the early weeks of the vaccination program it is anticipated that only the adjuvanted vaccine (Arepanrix®) will be available, potentially in limited quantities.

Initially, priority will be given to patients under 65 with chronic medical conditions, pregnant women over 20 weeks gestation, pregnant women in the first half of their pregnancy with severe chronic underlying conditions and residents of remote or isolated communities where access to timely health care services is very limited.

The second phase will make vaccine available to health care workers and children between the ages of 6 months and 4 years (inclusive), household contacts and care providers of infants less than 6 months old, and people who are immunocompromised. Thereafter vaccine will be offered to individuals over 6 months of age who do not have contraindications to the vaccine. Distribution of vaccine may be re-prioritized based on availability.

It is anticipated that the non-adjuvant vaccine (A/H1N1 Monovalent – unadjuvanted) will be available in early November 2009. This vaccine is indicated for pregnant women at less than 20 weeks gestation. When available, this may be the preferred vaccine option for all pregnant women.

## Seasonal Influenza Vaccine

Seasonal influenza vaccine is provided at no charge to the following groups:

### **People at high risk of serious illness from influenza:**

- Children 6-23 months of age
- Pregnant women who will be in their third trimester during the influenza season
- Seniors 65 years and older
- Residents of any age living in residential care, assisted living or other group facilities
- Children and teenagers taking Aspirin® or ASA for long periods of time
- Children and adults with certain medical conditions, including:
  - Heart or lung disorders that require regular medical care, including asthma, chronic obstructive pulmonary disease, cystic fibrosis
  - Kidney disease, chronic liver disease including hepatitis, diabetes, cancer, anemia, or weakened immune systems
  - Those with health concerns causing difficulty breathing, swallowing, or a risk of choking on food or fluids, including persons with severe brain damage, spinal cord injury, seizures or neuromuscular disorders.

### **People able to transmit or spread influenza to those at high risk of serious illness from influenza, including:**

- Doctors, nurses and other care providers who work in hospitals, residential care, assisted living or other group facilities
- Household contacts, caregivers and daycare staff of children under 24 months of age
- Household contacts of people at high risk
- People who live or work in confined settings such as correctional facilities.
- Those who provide care or service to people at high risk in potential outbreak settings such as cruise ships.

### **Others:**

- People who provide essential community services, such as police officers, firefighters and ambulance attendants
- Farmers and other people who work with live chickens.

## Pneumococcal Polysaccharide Vaccine

The Canadian National Advisory Committee on Immunization recommends pneumococcal vaccine for individuals 65 and over and those between the ages of 2 and 65 with chronic conditions that are at increased risk of invasive pneumococcal infection.

This includes individuals with:

- Anatomic or functional asplenia
- Sickle cell disease
- Immunosuppression related to disease (e.g. HIV, lymphoma, Hodgkin's, multiple myeloma) or therapy (e.g., high dose, systemic steroids or severe rheumatoid arthritis requiring immunosuppressive therapy)

- Congenital immunodeficiency states (e.g., complement, properdin or factor D deficiency)
- Chronic heart or lung disease
- Chronic kidney disease
- Chronic liver disease including cirrhosis, chronic hepatitis B and hepatitis C
- Receipt of hematopoietic stem cell transplant (HSCT)
- Solid organ or islet cell transplant (candidate or recipient)
- Diabetes
- Alcoholism
- Cystic fibrosis
- Chronic Cerebrospinal fluid leak
- Cochlear implant (candidate or recipient)
- Homelessness and/or illicit drug use

High risk children aged 2-10 years should receive 23-valent polysaccharide vaccine in addition to the conjugate pneumococcal vaccine. All infants in BC receive the conjugate pneumococcal vaccine which is given at 2, 4 and 12 months of age. High risk children may receive an additional dose at 6 months of age. This program started in 2003. Parents of young children should check their child's immunization record to ensure they are up to date for this vaccine (called "Pevnar" or PCV7)

## 7. Vaccine Information

### General

#### **Pandemic H1N1Vaccine**

Product monograph for the **Pandemic H1N1 (Arepanrix®)**, GSK) vaccine:  
[www.gsk.ca/english/docs-pdf/Arepanrix\\_PIL\\_CAPA01v01.pdf](http://www.gsk.ca/english/docs-pdf/Arepanrix_PIL_CAPA01v01.pdf)

#### **Seasonal Influenza Vaccine**

The trivalent product contains three strains of influenza virus:

- A/Brisbane/59/2007 (H1N1)
- A/Brisbane/10/2007(H3N2), and
- B/Brisbane/60/2008

Product monograph for (Fluviral®, GSK) inactivated, split virion vaccine:  
[www.gsk.ca/english/docs-pdf/Fluviral\\_2009\\_PM.pdf](http://www.gsk.ca/english/docs-pdf/Fluviral_2009_PM.pdf)

#### **Pneumococcal Vaccine**

For detailed CDC Immunization Program information on Pneumococcal Polysaccharide Vaccine refer to pages 47-50, Section VII, Biologic Products, of the BCCDC Immunization Manual located at: [www.bccdc.ca/NR/rdonlyres/CD9F6894-8373-469C-9F8A-6B27F76418D9/0/EPI\\_Guideline\\_CManualCh2\\_SectionVII\\_BiologicalProducts\\_Oct23\\_2009\\_1026.pdf](http://www.bccdc.ca/NR/rdonlyres/CD9F6894-8373-469C-9F8A-6B27F76418D9/0/EPI_Guideline_CManualCh2_SectionVII_BiologicalProducts_Oct23_2009_1026.pdf)

## Co-administration and Sequencing of Vaccines

Pandemic H1N1 and seasonal influenza vaccines may be given at the same time, by separate injection in separate limbs. Give H1N1 vaccine in the non-dominant arm.

If pneumococcal vaccine is given at the same time it should be given in the same limb as the seasonal vaccine.

If individuals choose to get the vaccines separately, they should get the H1N1 vaccine first. The Public Health Agency of Canada's Guidance on H1N1 Vaccine Sequencing can be accessed at: [www.phac-aspc.gc.ca/alert-alerte/h1n1/vacc/pdf/vacc-eng.pdf](http://www.phac-aspc.gc.ca/alert-alerte/h1n1/vacc/pdf/vacc-eng.pdf)

## 8. Adverse Events Following Immunization (AEFI) Reporting

Pharmacists should note that AEFI reporting for vaccines differs from ADR reporting for most medications. AEFIs for vaccines are reported to the Local Health Unit. The LHU collates and reports to the Centre for Disease Control, which in turn reports to the Public Health Agency of Canada.

The form for reporting AEFIs is available at [www.bccdc.ca/NR/rdonlyres/0F7FC86E-924C-4232-87DD-F5859E41A7A2/0/Epid\\_imms\\_adverse\\_events\\_form\\_june\\_09.pdf](http://www.bccdc.ca/NR/rdonlyres/0F7FC86E-924C-4232-87DD-F5859E41A7A2/0/Epid_imms_adverse_events_form_june_09.pdf)

A Health Canada public notice for health professionals on reporting of adverse reactions during the influenza season is located in **Appendix C**.

## 9. PharmaNet Requirements, Recording Requirements and Payment Information

For information on submission of claims on PharmaNet and on payment for publicly-funded vaccines please see PharmaCare Newsletter 09-015 available at [www.health.gov.bc.ca/pharmacare/newsletter/09-015news.pdf](http://www.health.gov.bc.ca/pharmacare/newsletter/09-015news.pdf).

### Recording Lot Numbers

Recording of vaccine lot numbers is **mandatory** to cover the rare event of a vaccine being recalled or of an Adverse Event Following Immunization (AEFI). It is up to each pharmacist to determine a means to record the vaccine lot numbers administered to each patient. Potential ways to accomplish this goal are to record the lot number on a hardcopy prescription of the vaccination or to create a separate vaccine administration log.

Note that there are **three** different lot numbers on the pandemic H1N1 influenza vaccine

- 1) One on the adjuvant vial
- 2) One on the antigen vial
- 3) One for the mixture of the two — this lot number is found on the outer “shoebox” of a the 500 dose packaging, or the outer label of a bubble pack containing a smaller number of doses of vaccine

Record:

- both the adjuvant and antigen lot number  
**OR**
- the outer (combination) lot number in your record.

## 10. Additional Links — H1N1 & Pandemic Vaccine Information

HealthLink BC -HealthLink information files for patients are available in multiple languages  
[www.healthlinkbc.ca](http://www.healthlinkbc.ca)

Public Health Agency of Canada Information on Pregnancy, Breastfeeding and H1N1  
[www.phac-aspc.gc.ca/alert-alerte/h1n1/fs-fi-pregnancy-grossesse-eng.php?option=print](http://www.phac-aspc.gc.ca/alert-alerte/h1n1/fs-fi-pregnancy-grossesse-eng.php?option=print)

BCCDC Immunization Manual  
[www.bccdc.ca/dis-cond/comm-manual/CDManualChap2.htm](http://www.bccdc.ca/dis-cond/comm-manual/CDManualChap2.htm)

Contraindications to Vaccination and Routine Precautions– BCCDC  
[www.bccdc.ca/NR/rdonlyres/22AB8B06-E83B-4159-BA23-0A51717E386B/0/SectionIIB\\_June.pdf](http://www.bccdc.ca/NR/rdonlyres/22AB8B06-E83B-4159-BA23-0A51717E386B/0/SectionIIB_June.pdf)

## 11. Posters and Handouts for Your Pharmacy

### BC HealthLink File:

- Influenza Vaccine Myths and Facts: [www.healthlinkbc.ca/healthfiles/pdf/hfile12c.pdf](http://www.healthlinkbc.ca/healthfiles/pdf/hfile12c.pdf)

### Health Canada posters:

- H1N1 Vaccine Dosing Recommendations — [www.phac-aspc.gc.ca/alert-alerte/h1n1/pdf/H1N1-FluVaccine-HighResolution-EN.pdf](http://www.phac-aspc.gc.ca/alert-alerte/h1n1/pdf/H1N1-FluVaccine-HighResolution-EN.pdf)
- Getting the Flu versus Getting Vaccine or taking Antivirals — [www.phac-aspc.gc.ca/alert-alerte/h1n1/vacc/pdf/options-eng.pdf](http://www.phac-aspc.gc.ca/alert-alerte/h1n1/vacc/pdf/options-eng.pdf)

# Appendices

## Appendix A Sample Private Provider Agreement



BC Centre for Disease Control  
An agency of the Provincial Health Services Authority

### Agreement for the provision of A/H1N1 pandemic vaccine

- 1) I confirm that I am qualified to administer vaccinations and agree to provide my own injection supplies.
- 2) I understand the adjuvanted A/H1N1 pandemic vaccine is only available in 10 dose vials of antigen and adjuvant separately, which require mixing into the larger of the two vials. Once mixed, the resulting vaccine must be used within 24 hours or discarded.
- 3) I have estimated the number of doses ordered accurately to reflect my client population in order to minimize wastage.
- 4) I agree to review on an ongoing basis the following resources for updated recommendations for immunization service providers:
  - o [www.hls.gov.bc.ca/pho/physh1n1.html](http://www.hls.gov.bc.ca/pho/physh1n1.html)
  - o [www.immunizebc.ca](http://www.immunizebc.ca)
  - o Information received from my regional health authority/ medical health officer
- 5) I understand the vaccine is being provided to me at no charge.
- 6) I agree to report adverse events following immunization to my local health unit office using the Report of Adverse Event Following Immunization form available at [www.bccdc.ca/NR/rdonlyres/0F7FC86E-924C-4232-87DD-F5859E41A7A2/0/Epid\\_imms\\_adverse\\_events\\_form\\_june\\_09.pdf](http://www.bccdc.ca/NR/rdonlyres/0F7FC86E-924C-4232-87DD-F5859E41A7A2/0/Epid_imms_adverse_events_form_june_09.pdf)
- 7) I agree to enter the administration of each immunization into the PharmaNet database and identify the risk category.
- 8) I agree to follow the BCCDC Communicable Disease Control Manual. The immunization guidelines are in Chapter 2 at [www.bccdc.ca/dis-cond/comm-manual/default.htm](http://www.bccdc.ca/dis-cond/comm-manual/default.htm)
- 9) I agree to store the vaccine between 2° and 8° C. I will check my fridge at the start and end of each business day and record the temperature on the Temperature Form available at [www.bccdc.ca/imm-vac/ForHealthProfessionals/VaccineAndPharmacyServices.htm](http://www.bccdc.ca/imm-vac/ForHealthProfessionals/VaccineAndPharmacyServices.htm)

10) I agree to comply with BC's Management of Biologicals Guidelines available at [www.bccdc.ca/NR/rdonlyres/571A2C6D-8E4A-440E-BB41-35A6725B9FE5/0/SectionVI\\_ManagementofBiologicals\\_May.pdf](http://www.bccdc.ca/NR/rdonlyres/571A2C6D-8E4A-440E-BB41-35A6725B9FE5/0/SectionVI_ManagementofBiologicals_May.pdf)

11) I understand the recommended recipients of the publicly funded seasonal influenza vaccine are listed on p. 31 of the Biological Products section available at [www.bccdc.ca/NR/rdonlyres/CD9F6894-8373-469C-9F8A-6B27F76418D9/0/SectionVII\\_BiologicalProducts\\_July.pdf](http://www.bccdc.ca/NR/rdonlyres/CD9F6894-8373-469C-9F8A-6B27F76418D9/0/SectionVII_BiologicalProducts_July.pdf)

Signature

\_\_\_\_\_

Date: \_\_\_\_\_

Name (print): \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone number: \_\_\_\_\_

Email: \_\_\_\_\_

## Appendix B Cold Chain Monitoring Products in British Columbia

### Cold Chain Monitoring Products in British Columbia

Final Report – October 16, 2009

#### Background

Over the past three years the value of vaccines returned to BCCDC due to terminal cold chain incidents in the field have averaged approximately \$408,000 per year, as determined from analysis of the Field Return Forms. Establishing improved cold chain monitoring practices throughout the province will help to reduce this unnecessary wastage. Many vaccine wastage reduction initiatives are underway including new Biologicals Management Guidelines available at <http://www.bccdc.ca/dis-cond/comm-manual/CDManualChap2.htm> and new vaccine stability information. The new vaccine redistribution process increases the general requirements for monitoring the cold chain and having supporting documentation that cold chain storage temperatures were maintained at 0-8°C. This project was funded by the BC Immunization SubCommittee (BCISC) and is closely linked to the BCISC Vaccine Wastage Reduction Working Group.

#### Project Description

This project assessed and reviewed cold chain monitoring products and practices used in BC public health. Within this project, feedback was gathered for process improvement and to provide to all a resource library of products with evidence-based performance. BCCDC often receives requests for expert opinion of cold chain products; this project will assist BCCDC staff to act in this role.

\*Coolers which are “non-qualified” have no available information on their ability to retain cold temperatures for any times under any conditions.

Product Name	Company	Image	Weblink	Accuracy	Outer Dimensions (Inches)	Inner Dimensions (Inches)	Volume (approx)	Special Features	Price
Hemo Thermal	Alternatives Technologies Pharma Inc		<a href="http://www.alternatives-tech.com/atp-hemothermal.asp">http://www.alternatives-tech.com/atp-hemothermal.asp</a>	Not mentioned	15 ¾ x 9 ½ x 13 ¾	12 ½ x 8 ½ x 8 ½	12 L (12.5 Quart)	Wire rack for top that holds ice packs (easy to remove in clinics)	Total: \$345.67 Cooler: \$204.75 Shipping: \$140.92
SN Vaccine Carrier System	Marsys Inc	Blue, soft-sided	n/a Phone number for Dennis Butcher at Marsys: 1-877-915-4500	Reaches 9°C after 14 hours with hourly opening and	14 ½ x 8 x 8 ½ <i>Custom sizes are available</i>	13 ½ x 7 ½ x 7	15 L (16 Quart)	Soft-sided. Pouch in the lid for ice packs. Pocket in the side for a thermometer.	Call to ask

				closing.					
Duo-Temp Locking Tote	VWR		<a href="http://www.vwrsp.com/catalog/product/index.cgi?catalog_number=89047-300&amp;inE=1&amp;highlight=89047-300&amp;from_search=1">http://www.vwrsp.com/catalog/product/index.cgi?catalog_number=89047-300&amp;inE=1&amp;highlight=89047-300&amp;from_search=1</a>	Non-qualified*	10 ½ x 8 x 8	9 ¾ x 7 ½ x 7 ½	9 L (9.5 Quart)	Soft-sided. Mesh sleeve in the lid to hold ice pack.	List: \$58.27
Blood Bank Transport Tote	VWR		<a href="http://www.vwrsp.com/catalog/product/index.cgi?catalog_number=89047-300&amp;inE=1&amp;highlight=89047-300&amp;from_search=1">http://www.vwrsp.com/catalog/product/index.cgi?catalog_number=89047-300&amp;inE=1&amp;highlight=89047-300&amp;from_search=1</a>	1-6°C for 6+ hours, 1-10°C for up to 24 hours	17 ¾ x 12 ¾ x 13 ¾	15 ¾ x 10 ¾ x 12 ¾	27 L (28.5 Quart)	Interior wire baskets. Comes with 5 gel packs.	List: \$231.25
Blood Collection Transport Tote	VWR		<a href="http://www.vwrsp.com/catalog/product/index.cgi?catalog_number=89047-300&amp;inE=1&amp;highlight=89047-300&amp;from_search=1">http://www.vwrsp.com/catalog/product/index.cgi?catalog_number=89047-300&amp;inE=1&amp;highlight=89047-300&amp;from_search=1</a>	1-10°C for up to 24 hours. Nothing mentioned about opening or closing frequency.	17 ¾ x 12 ¾ x 24 ¾	15 ¾ x 10 ¾ x 22 ¾	45 L (47.5 Quart)	Interior wire baskets.	List: \$237.62
Cool 16	Igloo Coolers		<a href="http://www.igloocoolers.com/products/PersonalSize/IglooClasses/290/">http://www.igloocoolers.com/products/PersonalSize/IglooClasses/290/</a>	Non-qualified*	14.63 x 10.38 x 13.63	Not available	15 L (16 Quart)	n/a	\$23.99

Wheelie Cool 38	Igloo Coolers		<a href="http://www.igloocoolers.com/products/FullSize/Wheeled/284/">http://www.igloocoolers.com/products/FullSize/Wheeled/284/</a>	Non-qualified*	23 x 12.88 x 15 ¾	Not available	36 L (38 quart)	n/a	\$42.99
Playmate Elite MaxCold	Igloo Coolers		<a href="http://www.igloocoolers.com/products/PersonalSize/MaxCold/221/">http://www.igloocoolers.com/products/PersonalSize/MaxCold/221/</a>	Non-qualified*	15.88 x 10.19 x 14.88	Not available	15 L (16 quart)	n/a	\$32.99
MaxCold 24	Igloo Coolers		<a href="http://www.igloocoolers.com/products/PersonalSize/MaxCold/308/">http://www.igloocoolers.com/products/PersonalSize/MaxCold/308/</a>	Non-qualified*	14.63 x 10.38 x 14.13	Not available	15 L (16 Quart)	n/a	\$27.99
Cool Fusion MaxCold 30	Igloo Coolers		<a href="http://www.igloocoolers.com/products/PersonalSize/MaxCold/299/">http://www.igloocoolers.com/products/PersonalSize/MaxCold/299/</a>	Non-qualified*	15.38 x 13 x 17 ½	Not available	19 L (21 quart)	n/a	\$54.99
MaxCold 36	Igloo Coolers		<a href="http://www.igloocoolers.com/products/PersonalSize/MaxCold/309/">http://www.igloocoolers.com/products/PersonalSize/MaxCold/309/</a>	Non-qualified*	16 ¼ x 11 ¾ x 15.56"	Not available	22 L (24 quart)	n/a	\$32.99

28 QT Blue Cooler with Bail Handle	Coleman		<a href="http://www.coleman.com/coleman/colemacom/detail.asp?product_id=6278-718G&amp;categoryid=8530&amp;brand=">http://www.coleman.com/coleman/colemacom/detail.asp?product_id=6278-718G&amp;categoryid=8530&amp;brand=</a>	Non-qualified*	19.7" x 12" x 13.7"	15" x 7" x 10.6"	26.5 L (28 quart)	n/a	\$25.99
18 QT Party Stacker Cooler	Coleman		<a href="http://www.coleman.com/coleman/colemacom/detail.asp?product_id=3000000485&amp;categoryid=8530&amp;brand=">http://www.coleman.com/coleman/colemacom/detail.asp?product_id=3000000485&amp;categoryid=8530&amp;brand=</a>	Non-qualified*	15" x 13.41" x 15.21"	Not available	17 L (18 quart)	n/a	\$17.99
16 QT Personal Wheeled Cooler	Coleman		<a href="http://www.coleman.com/coleman/colemacom/detail.asp?product_id=2000001815&amp;categoryid=8530&amp;brand=">http://www.coleman.com/coleman/colemacom/detail.asp?product_id=2000001815&amp;categoryid=8530&amp;brand=</a>	Non-qualified*	Not available	Not available	15 L (16 quart)	n/a	\$26.99
9 Quart Excursion Cooler	Coleman		<a href="http://www.coleman.com/coleman/colemacom/detail.asp?product_id=3000000166&amp;categoryid=8530&amp;brand=">http://www.coleman.com/coleman/colemacom/detail.asp?product_id=3000000166&amp;categoryid=8530&amp;brand=</a>	Non-qualified*	Not available	Not available	8.5 L (9 quart)	n/a	\$22.99
Fliplid 6 Cooler	Coleman		<a href="http://www.coleman.com/coleman/colemacom/detail.asp?Product_id=5205A753G">http://www.coleman.com/coleman/colemacom/detail.asp?Product_id=5205A753G</a>	Non-qualified*	Not available	Not available	4.7 L (5 quart)	n/a	\$14.99

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## Appendix C Adverse Reaction Reporting During Influenza Season



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### ADVERSE REACTION REPORTING DURING INFLUENZA SEASON

Post-market surveillance of adverse reactions is an important part of the Government of Canada's health product safety strategy. The widespread use of certain products for the prevention or early treatment of influenza or other respiratory infections in the general population may reveal unknown safety or effectiveness issues.

By promptly reporting any unexpected or serious adverse reactions your patients experience after taking an antiviral drug, the influenza vaccine, or the H1N1 vaccine, you can help the government identify these issues and take the appropriate action. This is especially important for potentially more vulnerable groups such as children and pregnant women.

You do not have to be certain that the product caused the reaction in order to report it. Adverse reaction reports are, for the most part, only suspected associations. Even minor reactions should be reported.

There are different routes for reporting adverse reactions to antiviral drugs and vaccines.

#### ANTIVIRALS AND OTHER HEALTH PRODUCTS:

Adverse reactions to antiviral drugs and other health products are reported to Health Canada using one of three methods:

- By calling toll-free at **1-866-234-2345**
- Online at **[www.healthcanada.gc.ca/medeffect](http://www.healthcanada.gc.ca/medeffect)**
- By completing an adverse reaction reporting form which you can send by **postage paid mail** or **fax toll-free** to **1-866-678-6789**.

The form, postage paid label and additional information are available at [www.healthcanada.gc.ca/medeffect](http://www.healthcanada.gc.ca/medeffect) or by calling 1-866-234-2345. The adverse reaction reporting form is also available at the back of the *Compendium of Pharmaceuticals and Specialties (CPS)*.

#### VACCINES:

The Adverse Event Following Immunization Reporting Form can be downloaded from the PHAC website: **<http://www.phac-aspc.gc.ca/im/aeifi-form-eng.php#2>**. Once completed, the form should be sent to your local health department, or to the Public Health Agency of Canada. Reports can be **mailed** to the address on the reporting form or **faxed** to the following numbers:

- **613-954-9874**
- Toll free: **1-866-844-5391**

In all cases, you should consult the established reporting procedures in your province or territory to ensure the appropriate public health officials are alerted.

Canada