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INSTRUCTIONS

1. After carefully reading this lesson, study each question and select the one answer you believe to be correct. For immediate results answer online at www.CanadianHealthcareNetwork.ca.

2. To pass this lesson, a grade of at least 70% (11 out of 15) is required. If you pass, your CEU(s) will be recorded with the relevant provincial authority(ies). (Note: some provinces require individual technicians to notify them.)

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Influenza vaccinations: the role of the pharmacy technician

by Carla MacKay, RPEBC, RPhT, BA (Hons)



Learning objectives

Upon completion of this lesson, pharmacy technicians will be able to do the following:

1. Describe influenza and how it affects the body.
2. Learn how to effectively discuss the influenza vaccine with patients.
3. Determine how to assist or run a flu immunization program in collaboration with the pharmacist.
4. Recognize flu vaccine scenarios inside or outside their scope of practice.

Introduction

When the benefits of choosing to use a new immunization app are being touted in an article on the Canadian Pharmacists Association's (CPhA's) website,⁽¹⁾ it is clear that the practice of pharmacy is continually changing and adapting, both technologically and methodologically. "Advancement" is a key word in describing both the app and what is

currently happening in Canadian pharmacies, as patients in eight provinces can now choose to receive their yearly flu shot from their local pharmacist, rather than visiting their family doctor. Further connected to these developments is the expanded scope at the forefront of the recent progression in pharmacist and pharmacy-technician education and practice. Therefore, the central

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idea behind this continuing education lesson is as follows: As an increasing number of pharmacists become qualified to administer the flu shot, how can the technicians working alongside them provide the support required within the parameters of their own scope of practice?

Influenza 101

The National Advisory Committee on Immunization (NACI) ranks influenza among the top 10 infectious diseases affecting the Canadian population, and it is estimated that between 10%–20% of the population becomes infected with the flu each year.⁽²⁾ But what exactly is influenza?

The respiratory tract infection known as influenza is caused by a virus that affects the nose, throat, bronchial tubes and lungs. It is also contagious and is spread through respiratory droplets from an infected person or through direct contact with contaminated surfaces.⁽³⁾ There are three types of influenza—A, B, and C—and the differences are as follows:

- Influenza A infects both humans and animals
- Influenza B solely infects humans
- Influenza C only causes mild illness in humans.⁽³⁾

Each type of influenza virus easily mutates, and that is why vaccine compositions change year to year, with each annual vaccine containing weakened or inactivated versions of the virus strains that are most likely to cause influenza in a given year.⁽³⁾ Influenza A and B strains are included in marketed vaccines, and most vaccines are currently of the trivalent versus quadrivalent variety. (Trivalent vaccines protect against three different flu virus strains and quadrivalent vaccines protect against four.⁽⁴⁾)

Each year, the period commonly known as “the flu season” begins in late October and extends through April. During these months, only a fraction of people with influenza seek medical attention for their flu-related symptoms.⁽²⁾ There are, of course, warning signs, and common symptoms of influenza include headache, chills, cough, fever, loss of appetite, myalgia (muscle pain), fatigue, rhinitis (irritation and inflammation inside the nose), sneezing (sometimes), watery eyes and throat irritation. Nausea,

TABLE 1 - Is it a cold or the flu?		
SYMPTOM	COLD	FLU (INFLUENZA)
Fever	Rare	Usual, high fever (102°F/39°C to 104°F/40°C), sudden onset, lasts 3–4 days
Headache	Rare	Usual, can be severe
General aches and pains	Sometimes, mild	Usual, often severe
Tired and weak	Sometimes, mild	Usual, often severe
Extreme fatigue	Unusual	Usual, early onset
Runny, stuffy nose	Common	Common
Sneezing	Common	Sometimes
Sore throat	Common	Common
Chest discomfort, coughing	Sometimes, mild to moderate	Usual, can be severe
Complications	Can lead to sinus congestion or ear ache	Can lead to pneumonia and respiratory failure; can worsen a current chronic respiratory condition; can be life-threatening

Source: Public Health Agency of Canada and Immunize Canada handout: “Is it a Cold or the Flu?”

vomiting, and diarrhea may also occur, particularly in children.⁽²⁾ Table 1 outlines the symptomatic differences between the common cold and the flu.

Influenza immunization for the public

Most people who contract the flu recover within 7 to 10 days, with proper treatment. At-home treatment options include drinking extra fluids; using throat lozenges, saline nose sprays or a humidifier; eating healthy foods; and getting plenty of rest and sleep. Medical intervention is not always necessary, but as a pharmacy technician it is important to be aware of the following categories of people who are most at risk of flu-related complications (such as pneumonia) or hospitalization:

- Adults with chronic health conditions (such as cardiac or pulmonary disorders, diabetes mellitus, cancer and immune-compromising conditions, renal disease and anemia)
- People older than 65 years of age
- Children 6 to 59 months of age
- Healthy pregnant women
- Aboriginal peoples⁽⁵⁾

If these groups of people are infected with the flu, it can be serious and, in some cases, deadly. Getting the flu shot each year is an important way to avoid or

decrease the chance of becoming ill.

The NACI states that the flu vaccine is safe and well-tolerated, and recommends influenza vaccination for “all individuals aged 6 months and older” (noting product-specific age indications and contraindications).⁽²⁾ The NACI also recommends vaccinating pregnant women and those with minor acute illnesses (patients with serious acute illnesses should wait to receive their flu shot until symptoms have subsided). Vaccination is the safest, longest-lasting and most effective way to prevent influenza,⁽⁵⁾ with immunity beginning two weeks after administration of the vaccine and normally lasting for 12 months.⁽⁶⁾

Certain segments of the population should not be immunized, however, and these include individuals who previously experienced an anaphylactic reaction to a dose of influenza vaccine or to any of the vaccine components (with the exception of egg), or who developed Guillain-Barré syndrome within six weeks of influenza vaccination.⁽⁶⁾ According to the Mayo Clinic, “Guillain-Barré syndrome is a rare disorder in which the body’s immune system attacks the nerves. Weakness and tingling in the extremities are usually the first symptoms, and these sensations can quickly spread, eventually paralyzing the whole body. The exact cause of Guillain-Barré syndrome is

unknown, but it is often preceded by an infectious illness such as a respiratory infection or the stomach flu."⁽⁷⁾

The 2014–2015 flu season

During the 2014–2015 flu season, 10 influenza vaccines were authorized for use in Canada (see Table 2), but the brands available for public funding varied. For instance, the NACI states its preferential recommendation for the use of live attenuated influenza vaccine (LAIV) in healthy children aged 2 to 5 years because this vaccine (FluMist[®]) has superior efficacy compared with trivalent inactivated vaccines (TIV).⁽²⁾ FluMist[®], however, is not publicly funded in every province.

It is up to the patient if they wish to pay out-of-pocket for a flu vaccine not covered by their provincial government, and because the public has access to the influenza recommendations issued annually by the NACI, patients may opt to take charge of their health by choosing their vaccine.

The technician should also be aware of other influenza immunization–related facts that could affect their initial conversation with a flu-vaccine candidate. For instance, in previous years there was a recommendation against receiving the flu vaccine if a patient had an egg allergy, but in recent seasons (including 2014–2015), the NACI has stated that “individuals with egg allergies may be vaccinated against influenza using a full dose of trivalent or quadrivalent inactivated influenza vaccine, whether there has been a previous reaction to egg or not; an influenza skin test is not required.”⁽²⁾

Flu immunization programs from the technician’s perspective

With many Canadian pharmacists trained and legally able to administer the flu vaccine (see Table 3), the technician’s role in influenza immunization programs has become increasingly prominent. Technician-assisted planning and preparation are important for ensuring a successful influenza immunization program in the pharmacy (see Table 4).

Temperature logs and cold-chain maintenance

Temperature logging of the vaccine fridge is one of the first tasks that requires a pharmacy’s attention, as this record provides evidence that an approved injection

TABLE 2 - Flu vaccines approved for use in Canada for the 2014–2015 season*

<ol style="list-style-type: none"> 1. Fluviral[®] 2. Vaxigrip[®] 3. Agriflu[®] 4. Influvac[®] 5. Intanza[®] 6. Fludac[®] 7. Fluzone[®] 8. FluMist[®] 9. Flulaval[®] Tetra 10. Fluzone[®] Quadrivalent

*Seven of the vaccines are trivalent inactivated vaccines (TIV). An eighth, FluMist[®], is a live attenuated influenza vaccine (LAIV). The remaining two are newly approved quadrivalent inactivated vaccines (QIV). Although these vaccines are approved for use, not all were marketed in the 2014–2015 flu season.⁽⁶⁾

site is able to maintain the cold chain. The method is simple: using an appropriate thermometer, record the fridge’s highs and lows daily. These temperatures should always fall between 2°C to 8°C.

Processes may differ between provinces, but this log will need to be submitted before the pharmacy receives its initial order of vaccines as well as with the paperwork for any subsequent orders. The

upkeep of this log is a straightforward, required task, and related to it are the further administrative duties regarding the proper storage of vaccines.

According to the CPhA, a few guidelines for best practice in terms of vaccine storage include the following:

- Vaccines should be stored at 2°C to 8°C in complete darkness and they should never be frozen.
- Vaccines should not be stored on fridge-door shelves, in fridge drawers, or on fridge floors.
- Pre-loading vaccines (from multidose vials) is strongly discouraged, except in clinical and hospital settings where proper labelling and transportation procedures are followed.⁽⁶⁾

Other tips to keep in mind include opening and storing vaccine shipments as soon as they are brought into the pharmacy (in order to properly maintain the cold chain) and taking care to store vaccines in a separate fridge away from where food and drink is kept so that staff are not continually opening the door. Keeping the nature of these tasks in mind, however, a technician at the head of a flu-immunization clinic might decide to make

TABLE 4 - Planning and implementing an influenza vaccination program: suggested timelines*

August to September	<ul style="list-style-type: none"> • Determine if there are adequate resources to support the delivery of an influenza immunization program. Consider the setting and staff availability. • Ensure patient consent forms, liability forms and procedures pertaining to anaphylaxis measures, sharps injuries and cold-chain storage are available and in place with the pharmacist.
September to first immunization clinic date	<ul style="list-style-type: none"> • Encourage patients to make appointments if the pharmacy is not accepting walk-ins. Organize patient appointments. • Place reminder stickers on prescription vials and provide bag-stuffers in prescription bags. • Ensure adequate number of vaccines has been ordered and that all necessary medical supplies (e.g., gloves, needles, bandages, diphenhydramine, epinephrine) are on hand.
Three weeks before first immunization clinic date	<ul style="list-style-type: none"> • Promote influenza immunization to patients.
Two weeks before first immunization clinic date	<ul style="list-style-type: none"> • Ensure sufficient fridge space and placement for vaccine shipment. • Reconnect with vaccine supplier/public health unit to confirm vaccine shipment.
Mid-October to April	<ul style="list-style-type: none"> • Offer influenza immunizations and document immunizations in pharmacy records or as agreed with the local public health agency.

*Adapted for the technician from the Canadian Pharmacists Association and Immunize Canada chart “Conducting an Influenza Immunization Clinic, Suggested Timelines,” found in the Influenza Immunization Guide for Pharmacists 2014.

TABLE 3 - Pharmacist administration of a drug by injection: regulations by province*

PROVINCE	INJECTIONS	REIMBURSEMENT	DESCRIPTION	TRAINING
British Columbia	Yes	\$10/injection	Pharmacists can administer IM, SC, or TD injections (including influenza immunizations) and treatment of anaphylaxis for patients ≥ 5 years of age	Pharmacists must complete the Administration of Injections Certificate Program with an online pre-study and live workshop component
Alberta	Yes	\$20/day per patient for assessment and injection	Pharmacists can administer drugs by injection including the flu shot to patients ≥ 9 years old. Scope does not include influenza vaccinations (injectable or non-injectable) for children younger than 9 years	Pharmacists must complete an Alberta College of Pharmacists–approved or a CCCEP Stage 2 accredited program for pharmacist injection training
Saskatchewan	No	N/A	N/A	N/A
Manitoba	Yes	\$7/injection ⁽⁸⁾	Pharmacists can administer an injection to patients ≥ 5 years of age and can administer a vaccine to patients ≥ 7 years of age ⁽⁹⁾	Pharmacists must complete the online Immunization Competencies Education Program, including an online Manitoba-specific module, and an in-person practical skills workshop
Ontario	Yes	\$7.50/injection	Pharmacists can provide influenza immunizations to patients ≥ 5 years of age	Pharmacists must complete an Ontario College of Pharmacists–approved course for pharmacist injection training
Quebec	No	N/A	Regulation pending. Pharmacists can provide injections for demonstration purposes only.	N/A
New Brunswick	Yes	\$12/injection	Pharmacists can administer drugs by injection (including influenza vaccines) to patients ≥ 5 years of age	Pharmacists must complete a society-approved accredited education program on administration of injections by IM and SC routes. An additional program must be completed if pharmacists wish to inject via ID or IV routes
Nova Scotia	Yes	\$11.75/injection (for 2014); increasing by \$0.25 in 2015	Pharmacists can administer drugs by injection (IM or SC), including influenza vaccines, to patients ≥ 5 years of age	Pharmacists must complete an immunization and injection education and training program approved by council, and obtain a Nova Scotia College of Pharmacists Drug Administration by Injection permit
Prince Edward Island	Yes	\$12.18/injection ⁽⁸⁾	Pharmacists can administer drugs other than vaccines as well as influenza vaccines to patients 5 years of age or older ⁽¹⁰⁾	Pharmacists must hold a PEICP Extended Practice permit ⁽¹⁰⁾
Newfoundland and Labrador	Yes	Pending ⁽⁸⁾	Pharmacists can administer influenza immunizations to patients ≥ 5 years of age ⁽¹¹⁾	Pharmacists must provide proof of completion of a training program that is accredited by the CCCEP or proof of graduation from a pharmacy program accredited by the CCAPP in which education and training on administration of injections is a component of the core curriculum ⁽¹¹⁾
Yukon	No	N/A	N/A	N/A
Northwest Territories	No	N/A	N/A	N/A
Nunavut	No	N/A	N/A	N/A

CCAPP—Canadian Council for Accreditation of Pharmacy Programs; CCCEP—Canadian Council on Continuing Education in Pharmacy; ID—intradermal; IM—intramuscular; PEICP—Prince Edward Island College of Pharmacists; SC—subcutaneous; TD—transdermal.

*Adapted from the Canadian Pharmacists Association and Immunize Canada chart of the same title, found in the Influenza Immunization Guide for Pharmacists 2014, with additions from provincial pharmacist regulatory bodies (Manitoba, Prince Edward Island, and Newfoundland and Labrador).

use of the power of delegation and assign cold-chain maintenance to an assistant or student on staff. This is an acceptable delegation of duties, as the technician is likely also required in other areas, as detailed in the sections below.

Advertising and appointments

To optimize efficiency, technicians can also help organize the flu vaccine program by discussing the preferred flu vaccine administration schedule with the pharmacist(s) on staff. Options include scheduled clinic days/hours with appointments; walk-ins; or a mixture of both, with set appointments during a pre-determined window and walk-ins accepted during blocks of time when the pharmacy is known to be less busy.

The technician can further assist by making posters advertising the flu clinic, creating an appointment book, giving out reminder cards to patients who have scheduled appointments and phoning patients to confirm their availability (and to provide a friendly reminder about bringing health cards and wearing appropriate clothing, such as a T-shirt). For those patients who have appointments, technicians can also prepare in advance any paperwork the pharmacist might require, such as medication reviews and diabetes-care follow-ups.

Ordering supplies and vaccines

When reviewing how the influenza vaccine program is going to operate, the technician can also discuss the supplies that are needed, take the initiative to order those supplies, then ensure they are kept in stock throughout the flu season. Items the pharmacist will likely need are needle tips, alcohol swabs, hand sanitizer, gloves, bandages and emergency medication, such as epinephrine.

Another point of discussion with the pharmacist is the amount of each vaccine they prefer to order. Once the numbers have been determined (for initial and subsequent orders), the technician can fill out the necessary paperwork and have the pharmacist sign, as required.

Also important to consider are the children who will receive the flu shot at the pharmacy. It is a nice touch to hand out a special token at the end of the experience, such as

stickers, cartoon-themed bandages and other such paraphernalia. Ordering these items is usually done through the pharmacy wholesaler or through the public health unit.

Greeting patients

Once the above tasks have been taken care of and the flu program is ready to go, technicians can do one of the things they do best—greet the patients. Each recipient of a pharmacy-administered flu shot is required to complete corresponding paperwork giving consent. Included in these forms are fields for the pharmacy to record the brand of vaccine given and its lot number and expiry date. These pieces of information can be filled out by the technician, and, to further streamline the process, the technician can also screen



patients to help determine if they have any allergies, medical issues, recent illnesses the pharmacist should be aware of or concerns surrounding injections in general.

As patients come in, either for their appointments or as walk-ins, the technician should also keep in mind the order of the appointments and arrivals. In this situation, the pharmacist will appreciate the technician's organizational skills and minimization of confusion.

Billing

Depending on the pharmacist's preference or what has been agreed upon as a pharmacy team, the billing for flu shots can be completed either before or after the vaccine is administered. This is a task the technician can easily take care of, as adjudications are not normally a pharmacist's duty. In regards to properly completed forms, some things to watch out for are

- the inclusion of the patient's provincial health card number,
- a signature from both the patient and the administering pharmacist, and
- pricing—make sure the correct value per flu shot is being paid back to the pharmacy.

A final important step in many pharmacies is the electronic scanning of a patient's paperwork into their file so it can be referenced for future questions about treatment and for auditing purposes.

Scope of practice: checking prescriptions and responding to the patient

Within the technician's scope is the opportunity to sign off on the technical aspects of a prescription (provided the therapeutics have been reviewed by a pharmacist), then release that prescription to a patient. Every pharmacy's workflow is different, but pharmacists can experience a lot of pressure in a traditional retail setting. There are prescriptions to check, flu shots to administer and questions to answer. Technicians can embrace their role by taking the initiative to check prescriptions and move the process along, which creates less of a bottleneck for the pharmacist and the general workflow of the pharmacy.

Screening patient inquiries is also important for technicians, but the key is recognizing when questions step outside the technician's scope and into the realm of the pharmacist. For example, the following are three common question-and-answer scenarios a technician might encounter regarding the flu shot.

Question: *I take "X" medication. Will it interact with the flu shot?*

Answer: I am going to refer you to the pharmacist for the answer because he/she will be able to look at your medications and provide the best therapeutic advice in terms of interactions, but first I would like to ask you a few questions about your history with medication "X" so that I can brief the pharmacist before he/she speaks with you.

Question: *What side effects can I expect from the flu shot?*

Answer: Questions concerning side effects are best discussed with the pharmacist, but before I bring him/her into the conversation, you and I can start by updating your patient history with any new allergies or past

reactions or side effects you previously experienced when given the flu shot.

Question: *I have some old antibiotics at home, so can I use those if I think I have the flu?*

Answer: No. If you are experiencing symptoms you're not sure about, you should speak to the pharmacist and/or make an appointment with your doctor. You also shouldn't keep old antibiotics at home, so perhaps you can bring them into the pharmacy so we can dispose of them safely for you?

Summary

Pharmacy practice in Canada is in a state of flux as provinces move to provide an expanded scope to pharmacists and technicians, as well provide increased support and opportunities for advancement. Immunizations administered in pharmacies are a relatively new practice, and technicians can play an important role

so that the pharmacist does not have to shoulder the entire workload. This CE lesson discusses the many ways a technician can put their training to good use when planning an influenza immunization program, but it is also important for technicians to consider their individual workplaces and determine efficient practices that will work for their dispensaries. In this way, technicians can truly shine and help to lead their teams through a successful flu immunization season.

REFERENCES

1. New app helps in flu fight [news release]. Ottawa, ON: Canadian Pharmacists Association; October 17, 2014. www.pharmacists.ca/index.cfm/news-events/news/new-app-helps-in-flu-fight/ (accessed November 13, 2014).
2. An Advisory Committee Statement (ACS) National Advisory Committee on Immunization (NACI). Statement on seasonal influenza vaccine for 2014–15. Ottawa, ON: Public Health Agency of Canada; 2014. http://publications.gc.ca/collections/collection_2014/aspc-phac/HP40-114-2014-eng.pdf (accessed February 28, 2015).
3. Hopper T. Mosby's pharmacy technician principles and practice. 3rd ed. St. Louis: Elsevier Saunders; 2012.
4. Centers for Disease Control and Prevention. Key facts about seasonal flu vaccine. 2014. www.cdc.gov/flu/protect/keyfacts.htm (accessed November 13, 2014).
5. Public Health Agency of Canada, Immunize Canada. Pocket guide for healthcare professionals: influenza. Ottawa, ON: Immunize Canada; 2014. <http://www.immunize.ca/en/events/influenza-imm-campaign/pocketguide.aspx> (accessed February 28, 2015).
6. Canadian Pharmacists Association, Immunize Canada. Influenza immunization guide for pharmacists, 2014. Ottawa, ON: Canadian Pharmacists Association; 2014. www.pharmacists.ca/cpha-ca/assets/File/education-practice-resources/Flu2014-Guide_EN.pdf (accessed February 28, 2015).
7. Mayo Clinic Staff. Disease and conditions: Guillain-Barre syndrome. Rochester, MN: Mayo Clinic. www.mayoclinic.org/diseases-conditions/guillain-barre-syndrome/basics/definition/con-20025832 (accessed November 13, 2014).
8. Canadian Foundation for Pharmacy. Fees and claims data for government-sponsored pharmacist services, by province. 2014. www.cfpnet.ca/bank/files/2013_ChangingFace_ExpandedChart.pdf (accessed January 11, 2015).
9. College of Pharmacists of Manitoba. Administration of drugs including vaccines. 2014. <http://mpha.in1touch.org/site/expandedscopeofpractice> (accessed January 11, 2015).
10. Prince Edward Island College of Pharmacists. Administration of drugs. Practice directives. 2014. <http://www.peppharmacists.ca/site/practice?nav=03> (accessed January 11, 2015).
11. Newfoundland and Labrador Pharmacy Board. Standards of practice. Standards for the safe and effective administration of drug therapy by inhalation or injection. 2014. www.nlpb.ca/media/SOPP-Administration-of-Drug-Therapy-by-Inhalation-or-Injection-Nov2014.pdf (accessed January 11, 2015).

QUESTIONS

Please select the best answer for each question and answer online at www.CanadianHealthcareNetwork.ca for instant results.

1. Influenza is an infection of the

- a) Respiratory system
- b) Cardiovascular system
- c) Nervous system
- d) Gastrointestinal system

2. Which period most accurately describes the duration of the flu season?

- a) All year long
- b) September through December
- c) January through April
- d) October through April

3. Which of the following are NOT common symptoms of the flu?

- a) Headache and myalgia
- b) Chills and fever
- c) Dizziness and lightheadedness
- d) Throat irritation and coughing

4. What is the usual recovery period for patients who have contracted the flu?

- a) Between 2 and 5 days
- b) Between 7 and 10 days
- c) Between 5 and 11 days
- d) Between 4 and 8 days

5. Which of the following is an indicator of a high-risk patient in terms of complications or hospitalization from the flu?

- a) Child 6 to 59 months of age
- b) Person older than 65 years of age
- c) Adult with a chronic health condition
- d) All of the above

6. Which patient descriptor should a technician flag for the pharmacist, in terms of flu-shot administration?

- a) A pregnant woman
- b) A man diagnosed with Guillain-Barré syndrome
- c) A child 9 years of age
- d) A woman suffering from a minor acute illness

7. Which of the following vaccines is a live attenuated influenza vaccine (LAIV)?

- a) FluMist®
- b) Fluviral®
- c) Agriflu®
- d) Fluad®

8. If a patient asks whether they can opt to receive a vaccine other than the publicly funded flu vaccine(s) provided by their province, what is the appropriate technician response?

- a) Yes, you can receive whichever vaccine you want and the pharmacist will administer it for you immediately.
- b) No, you can only receive the vaccine(s) that are publicly funded.
- c) Yes, it's ultimately your choice which vaccine you would like, but I will need some time to check availability, price and the pharmacist's opinion on the vaccine's appropriateness for you.
- d) No, pharmacies can't provide vaccines that aren't publicly funded, so you'll have to speak to your doctor.

9. The NACI recommends the flu vaccine for what age range (barring any contraindications)?

- a) Ages 5–64 years
- b) Ages 2–65 years
- c) Ages 6 months and older
- d) Ages 3 months and older

10. In the past, patients with an allergy to which item were not considered safe candidates to receive the flu shot?

- a) Nuts
- b) Milk
- c) Eggs
- d) Gluten

11. Which of the following is a patient question the technician should NOT attempt to answer?

- a) I had an allergic reaction to the flu shot last year, but I'm fine now. Can I get the shot this year?
- b) Why do I need another flu shot this year?
- c) Do I have to pay for the flu shot?
- d) Is the pharmacist properly trained to give me the flu shot?

12. Which provinces in Canada currently have legislation in place to allow pharmacists to administer the flu vaccine?

- a) British Columbia, Manitoba, Ontario, Nova Scotia, PEI
- b) British Columbia, Ontario, Nova Scotia,

New Brunswick, Newfoundland and Labrador

- c) British Columbia, Alberta, Manitoba, Ontario, New Brunswick, Nova Scotia, PEI, Newfoundland and Labrador
- d) British Columbia, Alberta, Ontario, New Brunswick, Nova Scotia, PEI

13. The temperature of the fridge where flu vaccines are stored should always be within the following range:

- a) 1°C to 9°C
- b) 2°C to 10°C
- c) 0°C to 8°C
- d) 2°C to 8°C

14. It is best practice to store flu vaccines in the following areas:

- a) Fridge-door shelves
- b) The floor of the fridge
- c) The staff fridge where food is kept and the door is repeatedly opened and closed
- d) None of the above

15. Which of the following is acceptable practice for a technician when the

pharmacist is busy administering a flu shot?

- a) Conducting a medication review with a patient and signing off on it as complete.
- b) Verifying the technical accuracy and releasing a refill prescription for Ezetro[®] that the patient has been taking for over a year, with no changes to the dose or to the patient's health (noting that the hard copy has also been signed by the pharmacist).
- c) Reviewing and releasing a new prescription for cephalexin to a patient who has a documented allergy to cephalosporins.
- d) Offering therapeutic advice and reasoning to a patient about whether they should abruptly stop taking their venlafaxine.

TECH CE

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Influenza vaccinations: the role of the pharmacy technician

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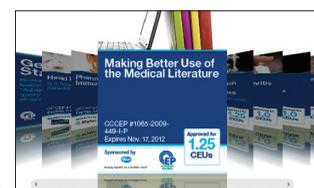
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