Immunization Module for LPNs

ASSOCIATION OF NEW BRUNSWICK LICENSED PRACTICAL NURSES

ANBLPN | AIAANB

Association of New Brunswick Licensed Practical Nurses

L'Association des Infirmier(ère)s Auxiliaires Autorisé(e)s du Nouveau-Brunswick

Table of Contents

Appendixes

Answer Keys

Introduction

The Association of New Brunswick Licensed Practical Nurses (ANBLPN) is the regulatory body for Licensed Practical Nurses (LPN) in New Brunswick. Our mandate is protection of the public by promoting the provision of safe, competent, ethical and compassionate care by its registrants.

LPNs wishing to add immunization to their individual scope of practice are required to obtain the necessary education before partaking in immunization practices as this education is not covered in the basic practical nurse program. ANBLPN has developed this module to provide LPNs with the opportunity to add this advanced competency to their individual scopes of practice. This module does not provide instructions on *how* to administer injections, rather it delivers theory-based immunization education.

Upon completion of the module LPNs are expected to work with their employer to achieve their clinical mentorship in immunization. Additionally, LPNs are expected to follow any employer policies that may be in place regarding performing immunizations.

Overview

The Immunization Module has been broken down into five learning objectives. Upon completion of each objective there will be a small quiz to assess your knowledge. An answer key is provided in the appendix. Upon completion of all learning objectives, the LPN will be required to complete a final examination.

Once you feel ready to write the examination, please contact ANBLPN to make the necessary arrangements. **The pass mark for the final examination is 75%.** If you are unsuccessful after your first attempt, you will have two additional opportunities.

ANBLPN cannot provide you with a skills lab component. You will be required to work with your employer while adhering to workplace policies to determine your proficiency in delivering immunizations. In most cases you would be required to observe the immunization procedure and then be observed by a qualified health care professional several times to determine your full competency in this skill.

For more detailed guidance and to stay up to date on all immunization practices, please visit the New Brunswick Immunization Program Guide ***and the*** Canadian Immunization Guide .

Objective 1: Accountability, Terms, Epidemiology & The Immune System

Immunization is one of the most powerful tools that has been discovered by modern medicine. Historically, infectious diseases were the leading cause of death worldwide but thanks to immunization programs this is no longer the case.

New diseases, such as Coronavirus, have the potential to significantly threaten our health and lives. Therefore, organizations such as Public Health, continuously aim to prevent and control communicable diseases to protect the health of New Brunswickers. This is achieved through immunization programs, disease monitoring and reporting, investigating and controlling disease outbreaks and public education.

Responsibilities of all Immunization Providers:

All immunization providers must practice in accordance with the New Brunswick Immunization Program Guide. This includes areas such as:

- Reporting to Public Health – Any **Adverse Event Following Immunization** (AEFI) must be reported to your local Public Health branch. The user guide to report AEFI can be found at: https://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/CDC/Epidemiology/NBAEFIFormE.pdf

- Recording – All immunization providers must provide clients with a record of immunization as per Reporting & Diseases Regulation NB, Public Health Act, section 14.

- Competency – All immunization providers must be deemed competent by their employed agency as per Policy 2.4 – Competencies for Immunization Providers; of the New Brunswick Immunization Program Guide.

- Safety – Immunization providers must ensure that:
    - An anaphylaxis kit is present during vaccine administration
    - Clients are monitored for at least 15 minutes post-immunization
    - Immunizations are documented including the lot number of the vaccine (**this is essential if a vaccine needs to be recalled or the client has an adverse event following immunization**)

Please visit Policy 2.1 – Immunization Practice for all Immunization Providers ***to review the national guidelines for immunization practices***

Terms:

Active Immunization	The production of antibodies against specific diseases by the immune system, either by contracting the disease or through immunization. This is usually permanent and protects individuals from the disease for the rest of their lives
Adjuvant	A substance added to a vaccine to increase the body's immune response to the vaccine
Adverse Event Following Immunization (AEFI)	An undesirable and unexpected experience following an immunization. ***It is a legal requirement that all AEFIs are reported in New Brunswick.***
Allergy	A condition where the body has an over-sensitive response to a food, substance or drug (hypersensitivity)
Anaphylaxis	Immediate and severe allergic reaction that can be fatal and requires immediate medical attention
Antibody	A protein found in the blood which is produced in response to foreign substances invading the body. Antibodies protect the body by binding to the foreign substance and destroying them
Antigen	Foreign substances capable of causing disease. Antigens trigger an immune response, usually the production of antibodies
Attenuated Vaccine (Live Vaccine)	Vaccine that contains a weakened (attenuated) live virus that produces an immune response without causing the severe effects of the disease (e.g., Measles, Mumps, Rubella, Varicella)
Bell's Palsy	Unilateral weakness or paralysis of the facial muscles
Boosters	Additional doses of a vaccine that is required periodically to "boost" the immune system (e.g., tetanus is recommended every 10 years)
Cold Chain	A system of storing and transporting vaccines at recommended temperatures to maintain the potency of vaccines (WHO)
Combination Vaccine	Two or more vaccines administered together to reduce the number of injections given (e.g., Measles, Mumps & Rubella)
Community (Herd) Immunity	When a sufficient proportion of a population is immune to a disease (through vaccination or previous illness) to make the spread of that disease unlikely (e.g., vaccinated against polio)

Epidemic	Disease present within a certain geographical area that is in excess of what is normally expected
Guillian-Barre Syndrome	A rare, neurological disease characterized by loss of reflexes and paralysis of the limbs, may also cause breathing difficulties if affects the respiratory muscles
Immunity	Protection against a disease (active or passive)
Immunization (Vaccination)	Process where a human or animal becomes protected against a disease
Inactivated Vaccine	Vaccine made from a dead virus or bacteria that cannot cause disease (e.g., influenza vaccine)
Pandemic	Epidemic that occurs over a very large geographical area (e.g., Coronavirus)
Passive Immunity	Protection against diseases through antibodies produced by another human being, however protection is limited and disappears over time (e.g., maternal antibodies)
Pathogen	Organisms that cause diseases
Side Effect	Undesirable reaction after receiving a vaccine (e.g., headache)
Toxoid	An attenuated/weakened toxin
Vaccine	A product that produces immunity and protects the body from disease

(CDC, a., 2016)

Epidemiology & Immunization

Epidemiology provides information on how diseases are determined and distributed in populations and helps determine whether a vaccine is needed or not. Epidemiology is required to understand the effects an immunization program has on communities and individuals.

Epidemiology is crucial to vaccine development because it assists in:

- Determining which vaccines should be included in public health programs;
- Assessing the burden of disease;
- Identifying pathogens for vaccine research;
- Identifying sources of disease transmission;
- Designing disease control, elimination and eradication strategies and
- Measuring the progress and impact of vaccines (Lahariya, 2017).

The Immune System

In order to understand how vaccines work, we first must understand how our body fights against illness. When foreign particles, such as bacteria and viruses, invade our body they attack and multiply which causes an infection. Our immune system naturally tries to protect us by using our white blood cells to fight these infections. Our white blood cells are our "defenders" and contain three components:

- Macrophages – collect and digest germs while leaving behind parts of the germs called antigens.

- B-Lymphocytes – produce antibodies that attack the antigens that were left behind by macrophages

- T-Lymphocytes – attack cells in the body that have already been infected

It can take several days or weeks for our body to recover from an infection the first time we encounter the germ that has caused the infection. Once we recover, our immune system remembers how to protect the body against it if we encounter the infection again because our T-Lymphocytes act like "memory cells". The T-Lymphocytes will recognize the invading antigen and in turn initiates the B-Lymphocytes to produce antibodies to attack it (CDC b., 2018).

Some people believe that "**naturally acquired immunity**" is better than receiving a vaccine. Naturally acquired immunity occurs when a person is exposed to an infection that causes the disease. Once (and if) the person recovers from the disease they are now immune to that disease. However, infections have the potential to cause serious complications and even death depending on the severity of the infection (CDC b., 2018). It is impossible to predict how serious an infection will be, which is why vaccines can be so helpful in preventing these infections in the first place.

Becoming immune to a disease requires the presence of **antibodies** to that specific disease in the person's body. Antibodies are proteins found in the blood which are produced in response to foreign substances invading the body and are disease specific. For instance, having the measles antibody will protect the person from acquiring measles but would have no effect on being exposed to the mumps.

Immune Responses

Immunity occurs when your body can protect itself from certain infections and diseases. Our bodies can protect us from hundreds of pathogens and creates immunity in two ways:

1) Innate Immunity – our first line of defense that occurs within hours of exposure to a pathogen. This response is made up of physical barriers (skin and mucous membranes), physiological barriers (elevated temperature, lower pH levels) or inflammatory responses.

2) Adaptive Immunity – our second line of defense and develops in response to infection or following immunization. It defends against specific pathogens and takes several weeks to become protective (Public Health Agency of Canada, a., 2018).

Types of Immunity

There are two types of immunity: active and passive.

Active Immunity occurs when a person is exposed to a disease and the immune system creates antibodies to that disease. Becoming exposed to the disease occurs either through being infected with the actual disease (natural immunity) or introducing a dead/weakened form of the disease through immunization. In both cases, if the person who is now immune encounters that disease again in the future, the immune system will recognize it and immediately start producing antibodies to fight it. This type of immunity is long-lasting and often lasts a lifetime (CDC, c., 2017).

Passive immunity occurs when a person is given antibodies to a disease, rather than their own immune system producing them. Some examples of this would be a newborn receiving its mother antibodies through the placenta or by receiving antibodies containing blood products such as immune globulin, which can be given when immediate protection is needed (CDC, c., 2017).

Passive immunity can be advantageous because protection is immediate, whereas active immunity can take up to several weeks to be effective. However, only active immunity is long lasting and passive immunity only lasts for a few weeks or months.

Types of Vaccines

The majority of New Brunswicker's born in Canada have been immunized against several life-threatening diseases such as polio, diphtheria, and pertussis. Depending on our ages, many New Brunswicker's have also been immunized against measles, mumps, rubella and meningococcal C.

Vaccines are biologic products created to illicit a protective immune response effectively and safely. The ideal vaccine is safe, has minimal side effects, provides life-long protection against a disease, is inexpensive and accessible, and easy to administer (Public Health Agency of Canada, a., 2018).

When vaccines are being developed, the first step is to identify the pathogen or toxin that is causing the disease. Once the pathogen has been identified, research is conducted to determine if a vaccine can be developed to reduce the incidence of disease. Pre-clinical lab testing is completed to ensure that the

vaccine will elicit an immune response that is free from toxicities which is then followed by several phases of human, clinical trials.

All vaccines can be classified into one of four types; **live** (attenuated), **killed** (inactivated), **toxoid** or **subunit**:

VACCINE TYPE	DEFINITION	EXAMPLES
Live (Attenuated)	• Produces the infection without causing symptoms or illness and is non-infectious • May cause mild side effects due to containing the weakened virus	• Varicella • MMR • Rotavirus
Killed (Inactivated)	• Virus is extracted, "killed" by chemicals and prepared for vaccine use • Less likely to cause side-effects as virus has been inactivated	• Polio • Hepatitis A • Rabies
Toxoid	• The toxin that causes the disease is inactivated by chemicals and prepared for vaccine use • Can be considered an "inactive" vaccine but given own category because they contain an inactivated *toxin* rather than virus or bacteria	• Tetanus • Diphtheria
Subunit	• Specific protein or carbohydrate that induces a protective immune response is isolated for vaccine use	• Hepatitis B • Meningococcal • Pertussis

(College of Physicians of Philadelphia, 2018)

Objective 1: Assess your Knowledge

1) An attenuated vaccine is a vaccine that:

a) Is made from a dead virus or bacteria that cannot cause disease
b) Has two vaccines administered together to reduce the number of injections given
c) Contains an inactivated toxin rather than virus or bacteria
d) Contains a weakened live virus that produces an immune response

2) Active immunity occurs when:

a) Someone is exposed to a disease and the immune system creates antibodies to that disease
b) A portion of the population is immune to a disease making the spread of disease unlikely
c) Someone is given antibodies to a disease, rather than their immune system producing them
d) A person is exposed to a disease, recovers, and is then immune from the disease

3) The component of our white blood cells that produces antibodies which attack antigens are:

a) B-Lymphocytes
b) Macrophages
c) T-Lymphocytes
d) Cytotoxics

4) An unexpected and undesirable response after an immunization is:

a) A side effect
b) An adverse event
c) An allergy
d) A hypersensitivity

5) An example of a live vaccine is:

a) Varicella
b) Influenza
c) Hepatitis B
d) Diphtheria

6) Foreign substances capable of causing disease are called:

a) Antibodies
b) Antigens
c) T-Lymphocytes
d) Macrophages

Objective 2: Vaccine Preventable Diseases, Vaccine Facts and Safe Storage & Transport

Immunization is one of the most powerful and cost-effective measures that can control and prevent diseases. Fortunately, Canada has routine, free, and accessible public immunization programs that cover the following preventable diseases:

Disease	Definition
Diphtheria	An infection caused by the bacteria *corynebacterium diphtheriae* that attacks the respiratory system. It is highly contagious and spreads through respiratory droplets (coughing and sneezing) and can result in a blocked airway, heart failure, paralysis and even death if left untreated.
Haemophilis Influenza Type B	A bacterium that can lead to extreme illness causing infections in the brain and spinal cord (meningitis), lungs (pneumonia) and severe throat infections (epiglottitis). It is spread through contact with nasopharyngeal secretions.
Hepatitis B	A virus that causes a contagious, liver disease that can lead to cancer and cirrhosis of the liver. It is spread through contact with infected blood, semen or other bodily fluids.
Measles	A highly contagious virus that is spread through respiratory droplets (coughing and sneezing). It can produce encephalitis and be fatal. It is the most contagious virus of all communicable diseases.
Pertussis	Also known as “whooping cough”, is caused by the bacteria *Bordetella pertussis* and is a highly contagious respiratory disease. It causes uncontrollable coughing leading to difficulty in breathing and can be especially fatal for babies and young children.
Mumps	A contagious virus spread through direct contact with saliva or respiratory droplets from the mouth, nose and throat. Mumps can cause health complications such as orchitis (inflammation of the testes), inflammation of the ovaries, pancreas, brain, and spinal cord.
Rubella	A contagious virus that causes mild disease and is spread by contact with nasopharyngeal secretions and saliva. It is more dangerous for pregnant women as it can cause miscarriage or serious birth defects.
Polio	A very contagious disabling and life-threatening disease caused by a virus that spreads through person to person contact. Polio affects the spinal cord which can cause paralysis and/or meningitis.

Tetanus	A bacterium that does not spread from person to person, the bacteria can enter the body through broken skin that has been in contact with soil, dust and manure or through injury with a contaminated object (nails, needles, burns etc.)
Meningococcal	Caused by the bacteria *neisseria meningitidis* causing severe illness that causes an infection in the spinal cord, lining of the brain and blood stream. It is the leading cause of bacterial meningitis in children aged 2 to 18 years.
Pneumococcal	Caused by the bacteria *Streptococcus pneumoniae* which can cause ear and sinus infections, pneumonia and blood infections.
Varicella	Also known as "chicken pox", is highly contagious and caused by the virus *varicella-zoster.* It is spread through the air through coughing and sneezing or from breathing in particles that come from the blisters. It is especially dangerous for babies and people with weak immune systems.
Human Papilloma Virus	An infection caused by a virus and the most common sexually transmitted infection. HPV infections are transmitted through vaginal, anal or oral sex.
Tuberculosis	Caused by the bacteria *mycobacterium tuberculosis* and is a respiratory disease that is not vaccine preventable, but it is a communicable disease. It can be spread through coughing, sneezing, singing or sometimes even just talking to someone. It can spread to kidneys, joints, bones, the brain and spinal cord.

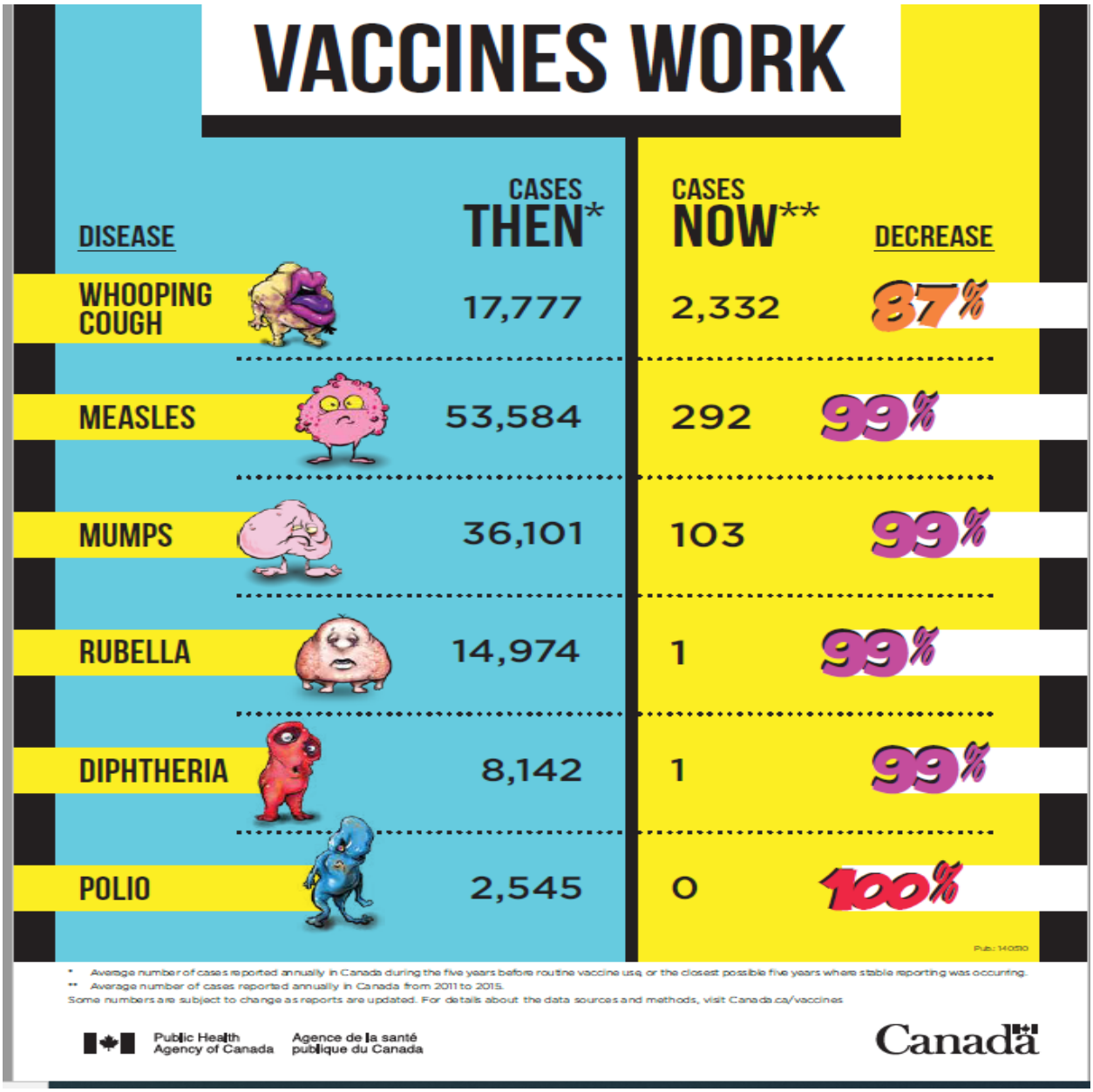
For more detailed information on vaccine preventable diseases please visit: *https://www.canada.ca/en/public-health/services/immunization/vaccine-preventable-diseases.html*

Vaccines are not just for children. Some childhood immunizations do not provide immunity across your life span for certain diseases and adults may be required to have boosters to protect them from certain diseases. Please see **Appendix I: Adult Immunization**.

Vaccine Facts

Vaccines have been scientifically proven to be safe and effective. Publicly funded vaccines are available to New Brunswicker's based on the eligibility requirements that are outlined in the New Brunswick Routine Immunization Schedule.

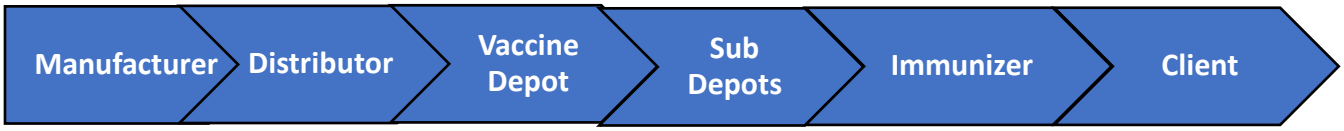
There are several vaccine facts sheets available to help educate yourself and the public. Please visit https://www2.gnb.ca/content/gnb/en/departments/ocmoh/cdc/content/immunization.html to view each vaccine fact sheet. The image below shows how effective vaccination has been since it's discovery:



(*Government of Canada, 2019)*

Storage & Transport of Vaccines

Proper storage, transportation and handling of vaccines is crucial to ensure that vaccine potency is maintained. The term used to describe this procedure is the "**cold chain**" system. The "cold chain" refers to the process used to maintain optimal conditions during the transport, storage, and handling of vaccines, starting at the manufacturer and ending with the administration of the vaccine to the client (Public Health Agency of Canada, b., 2015). Maintaining the cold chain is a shared responsibility of all who are involved from the time the vaccine is manufactured until it is administered to a client. Vaccines can be damaged due to exposure to extreme cold, heat or light.



If there is a break in the cold chain, it has the potential to decrease the potency of a vaccine and if that vaccine were to be used it could cause decreased levels of protection for the individuals who may receive it. To help ensure safe handling and storage of vaccines the following elements are required:

- Trained personnel,
- Appropriate storage and transportation equipment, and
- Written vaccine storage and handling procedures. (Public Health Agency of Canada, b., 2015)

Vaccines that require refrigeration must be kept at an internal temperature between 2° and 8° Celsius.

Refrigerators:

Vaccines should be stored in refrigerators that are designed for vaccine storage. Household refrigerators should not be used as they are not designed to maintain the precise temperatures that vaccines require.

A vaccine refrigerator should only be used to store vaccines – do not store food, drink or lab specimens with vaccines. Water bottles can be placed on empty shelves to help maintain a constant temperature. Temperature monitoring devices must be used, and the temperature must be checked and logged twice daily. An alarm must also be installed that will sound when the temperature is outside the cold chain level. Please see **Appendix II: Organizing Vaccine Refrigerators**

Vaccine Coolers & Shipping Containers:

If vaccines need to be transported (community visits, community clinics) it is essential that they are packed and transported appropriately. Proper storage and transportation must protect the vaccines from temperature and light. The following parameters will ensure proper storage and shipping of vaccines:

- Transport vaccines in insulated containers that are large enough to hold vaccines, ice packs, insulating materials and a thermometer
- Use appropriate freezer packs; do not use loose ice or snow
- Coolers must be strong and durable
- Do not transport vaccines in the trunk of a vehicle
- Ensure vaccines are protected from direct sunlight and air vents
- Never leave vaccines unattended in a vehicle

Ice Packs:

To maintain the temperature of vaccines, ice packs must be used during the transportation process or when they are being stored outside of the vaccine refrigerator. Always ensure that the icepack is completely frozen before using and never place an ice pack directly onto a vaccine.

Insulating Materials:

Insulating material (such as gel packs) must be used as a barrier between vaccines and ice packs. NEVER place an icepack in direct contact with a vaccine. If using gel packs, they should be kept in a refrigerator between 2° and 8° Celsius. Bubble wrap, styrofoam or crumpled packing paper may also be used.

Temperature Monitoring Devices:

Temperature monitoring devices are mandatory for all refrigerators that will be storing vaccines. Storage logs are essential, and temperatures must be checked twice daily. Thermometers that can be read from the outside of a refrigerator or cooler are recommended.

If there has been a suspected break in the cold chain, a Cold Chain Failure Report must be completed and sent to your local public health branch.

To view a temperature log please visit:
https://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/CDC/HealthProfessionals/TemperatureLog_e.pdf

Objective 2: Assess Your Knowledge

1) Which is the most contagious communicable disease?

a) Polio
b) Mumps
c) Pertussis
d) Measles

2) Vaccines that must be refrigerated must be within the temperature range of:

a) $2^{\circ} - 8^{\circ}$ C
b) $1^{\circ} - 7^{\circ}$ C
c) $3^{\circ} - 9^{\circ}$ C
d) $0^{\circ} - 6^{\circ}$ C

3) Which communicable disease is not vaccine preventable?

a) Tuberculosis
b) Hepatitis B
c) Pneumococcal
d) Diphtheria

4) Which childhood vaccine should everyone receive a booster for in adulthood?

a) Mumps
b) Varicella
c) Pertussis
d) Polio

5) The temperature of vaccine refrigerators must be checked and logged:

a) Once a week
b) Twice daily
c) Once daily
d) Twice a week

6) Which bacterium is not spread through person to person contact?

a) Meningococcal
b) Tuberculosis
c) Tetanus
d) Influenza Type B

Objective 3: Communication, Obtaining Consent and Immunization Records

Effective Communication

Although immunization is one of the safest tools available to protect against harmful diseases, there is still a portion of people who have concerns about vaccines and do not vaccinate themselves or their children against life-threatening diseases. When individuals do not vaccinate, it increases the chances of eradicated diseases resurfacing in Canada. As there is a lot of misinformation available regarding vaccines, it is up to health care professionals to provide accurate information about the health benefits of immunization.

Effective communication is an essential component of informed decision-making that is part of the process of obtaining informed consent. To ensure effective communication it is important to take the time to listen to a client's concerns without judgement, allow the client to ask questions, be prepared with accurate and up to date information on immunization and provide all of the risks and benefits of vaccinations.

To view vaccine facts, please visit Immunization: Get the Facts ***from Immunize Canada***

Informed Consent

Prior to performing any immunization, valid **informed consent** must be obtained. This process should involve an open and informed decision-making conversation between the immunization provider and the client who is to receive the vaccine. Prior to any vaccine given in Canada, the recipient must be fully informed with the benefits and risks of the vaccine to avoid any confusion and establish trust in vaccine programs (GNB, 2015).

There are three main elements required for consent to be considered valid:

1. It must be voluntary,
2. The client must have the mental capacity to give consent, and
3. The client must be properly informed (*The Canadian Medical Protective Association*)

Informed consent must be validated as per the *Patient's Bill of Rights (Canada)* and *the Health Charter of Rights and Responsibilities Act (New Brunswick).*

The New Brunswick Health Charter of Rights and Responsibilities Act (2003) states the rights and responsibilities of New Brunswicker's that relate to publicly funded immunization programs and speaks to the following components of informed consent:

- The right to receive relevant health care information (treatments, interventions, procedures)
- The right to make informed health care decisions such as:

    - The right to be involved in care planning and to have treatments, interventions, procedures, risks, side effects and alternatives explained,
    - The right to consent or refuse any treatment, intervention or procedure and
    - The right to have questions answered

In order to obtain informed consent, the immunization provider must ensure that the following information has been provided to clients:

- Nature and purpose of the vaccine,
- The risks and benefits of the vaccine,
- Possible consequences of refusal to a vaccine,
- The need for follow up,
- Signs and symptoms of complications and how to react to them and
- Give the opportunity to ask questions

The action of obtaining consent for immunization must be documented, as well as any refusal to immunization. Information that needs to be documented include:

- Client name and date of birth
- Declaration of consent or refusal
- Name of vaccine
- Date of consent
- Name of person consenting to immunization of a minor
- Name of person who is obtaining the consent *(Public Health Branch of Manitoba, 2015)*

Legal Age of Consent/Consent for Minors

In accordance with the *Medical Consent for Minors Act*, those who have reached the age of 16 can consent to any medical procedure independently. If younger than 16 years of age, a parent or legal guardian must give consent prior to receiving a treatment such as immunization. However, this Act does allow for those younger than 16 to consent to treatment if, in the opinion of a legally qualified medical practitioner, dentist, nurse practitioner or nurse attending the minor, deems the minor mature enough to be considered competent to make a medical decision providing the minor is:

- able to understand the nature and consequences of the treatment and
- the treatment is in the best interest of the minor *(*GNB*,* 2015*)*

Acceptance, Refusal and Withdrawal of Consent

Consent should be received in writing from the client and a copy should be kept for the organizations records. If vaccination has been recommended but the client refuses, this should be documented in the client's chart with a note detailing the discussion that took place. Clients may also withdraw their consent for treatment at any time and if this were to occur, you must ensure this is also documented in the client's chart.

Recording Immunization

Immunization providers must keep records of each immunization that is performed as it provides information about the type of care the client received, gives an accurate portrayal of diseases the client has been immunized against and it helps guide future immunization decisions.

In accordance with the *Public Health Act*, immunization providers must provide record of immunizations to the Minister of Health within one week of the vaccine being administered to a client. The **client immunization record** must include the following information:

- Name and address of person receiving the vaccine,
- The client's Medicare card number,
- Date, birth and gender of the client,
- Date the vaccine was given,
- Name and lot number of the vaccine, dosage, route, location on body it was administered, and
- Name and designation of the immunization provider

A copy of the Record of Immunization must also be provided to the person who has received the vaccine (GNB, 2015).

To view a sample of an immunization record please visit:
www2.gnb.ca/content/dam/gnb/Department/h-s/pdf/en/CDC/HealthProfessionals/NBIPG-appendice4-7-e.pdf

Objective 3: Assess Your Knowledge

1) For consent to be considered valid it must contain all of these elements except:

a) The client must be 18 years of age
b) The consent must be voluntary
c) The client must be properly informed
d) The client must have the mental capacity

2) If a client refuses a recommended vaccination what should you do?

a) Nothing as clients have the right to refuse
b) Document refusal in client's chart
c) Report client to public health
d) Inform client they are making a dangerous decision

3) Clients must receive a copy of their immunization record.

a) True
b) False

4) The client immunization record must include all of the following elements except:

a) Location on body the vaccine was received
b) Clients name, address and date of birth
c) Immunization providers date of birth
d) Date the vaccine was administered

5) Informed consent must be validated as per the:

a) Minister of Health
b) Patients Bill of Rights
c) Chief Medical Officer
d) Public Health Act

Objective 4: Nursing Assessment for Immunization, Vaccine Product Contents & New Brunswick Routine Immunizations

The nursing process is a step by step approach taken by nursing professionals to assess and care for clients to ensure a consistent and strategic approach to care. The first, and most important, step of the nursing process is the initial assessment of the client and involves collecting pertinent information about the client that will be used to guide their care (Ead, 2016).

Before a vaccine is administered, nursing professionals must ensure they assess each client to determine whether they should receive a vaccine based on their history and current health status. There are many factors that may influence a person's response to a vaccine, which may result in a vaccine being contraindicated for an individual or situations where precautions must be taken into consideration. **Contraindications** are situations where a vaccine should not be given because the risks outweigh the benefits, whereas a **precaution** is a situation where there would be an increased risk of an adverse reaction following immunization.

Allergies and certain medical conditions are some factors that must be considered prior to the administration of a vaccine. Please refer to Policy 2.11 Populations Requiring Special Consideration from GNB to review these special consideration groups. Proper screening of clients helps prevent adverse reactions and therefor standardized screening tools should be used to assess each patient properly (CDC c, 2019).

Please review The Canadian Immunization Guide which highlights contraindications and precautions for various immunizations.

At minimum, the assessment should include data collection on the client's immunization history, health history, current health status and the provider should be aware of the vaccine's contents to assess for a possible allergy. Once this information is collected, nursing professionals will either go forward with the immunization, defer the immunization to a later date (i.e. client is febrile), perform the immunization under a controlled setting (i.e. potential for an adverse reaction) or not perform the immunization as a contraindication has been discovered (i.e. past anaphylactic reaction to the vaccine).

Vaccine Product Contents

Prior to administering a vaccine, immunization providers must be aware of the contents of the vaccine to minimize the occurrence of an adverse reaction or a contraindication. Immunization providers must ensure they review the product label and any additional reading material that may be provided (Public Health Agency of Canada, a., 2018).

Immunization providers should familiarize themselves not only with the active contents of a vaccine, but also any adjuvants, preservatives, additives or traces of other substances that may be present in the vaccine.

> ***To review a list of ingredients for vaccines available in Canada please visit:*** https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-1-key-immunization-information/page-15-contents-immunizing-agents-available-use-canada.html

Routine Immunizations in New Brunswick

All publicly funded vaccines are available to New Brunswicker's based on eligibility requirements that are set out in the New Brunswick Routine Immunization Schedule. This schedule outlines the recommended vaccines for babies, children, adolescents and adults.

In New Brunswick, at minimum it is recommended to follow the routine immunization schedule. However, there are also other vaccines that are publicly funded but *not* part of the routine immunization schedule. You can view these lists below:

- Routine Immunization Schedule
- All Publicly Funded Vaccines

The chart below outlines some of the more common vaccinations:

Vaccine	Type	Protection	Route
DTap-IPV	Inactivated	Diphtheria Tetanus Polio Pertussis	IM Injection
Dtap-IPV-Hib	Inactivated	Diphtheria Tetanus Polio Pertussis Influenza Type B	IM Injection
Hepatitis A	Inactivated	Hepatitis A	IM Injection
Hepatitis B	Inactivated	Hepatitis B	IM Injection (Series of 3 doses)
MMR	Live/Activated	Measles Mumps Rubella	SC Injection (Series of 2 doses)

Vaccine	Type	Protection	Route
MMR-Var	Live/Activated	Measles Mumps Rubella Varicella	IM Injection (Series of 2 doses)
Meningococcal Conjugate – C	Inactivated	Meningococcal C	IM Injection
Pneumococcal	Inactivated	13 types of pneumococcal bacteria	IM Injection
Rabies	Inactivated	Rabies	IM Injection
Seasonal Influenza ("Flu Shot")	Inactivated	Various flu strains, changes each year	IM Injection
Rotavirus	Live/Activated	Rotavirus Disease	Oral liquid drops (Series of 3 doses)
HPV	Inactivated	Human Papillomavirus	IM Injection (Series of 2 doses)

(GNB, 2015)

To review a full fact sheet for each vaccine please visit:
https://www2.gnb.ca/content/gnb/en/departments/ocmoh/cdc/content/immunization.html

"Routine immunization (RI) is the sustainable, reliable and timely interaction between the vaccine, those who deliver it and those who receive it to ensure every person is fully immunized against vaccine-preventable diseases" (WHO, 2020).

As health care professionals it is important to ensure that clients are following the routine immunization schedule to maintain high levels of protection against harmful diseases. Occasionally modifications to the schedule will need to be made due to instances of uncontrollable circumstances or illness. If modifications have to be made it does not necessarily mean that the entire process has to be started over again, rather, elements such as doses can be modified to reflect the clients current age.

There may be specific schedules to follow for those immunizations that may have had to be interrupted as well as schedules for specific populations such as those who are pregnant, breast-feeding, are immunocompromised or those who have chronic conditions.

Please visit and review the New Brunswick Routine Immunization Schedule which has been set by the Chief Medical Health Officer of New Brunswick. This also includes a routine adult immunization schedule.

Objective 4: Assess Your Knowledge

1) Which vaccine should be given with precautions during pregnancy?

a) Influenza
b) MMR
c) HPV
d) Hepatitis A

2) Which of the following is a live vaccine?

a) Rotavirus
b) Hepatitis B
c) Rabies
d) Pneumococcal

3) Which vaccine is given as a series of 3 doses?

a) Hepatitis B
b) MMR
c) Hepatitis A
d) HPV

4) A live, attenuated influenza vaccine is contraindicated in clients with:

a) An egg allergy
b) Severe asthma
c) Chronic diseases
d) Active tuberculosis

5) The measles, mumps, rubella and varicella (MMRV) is given to children at what age?

a) 6 months
b) 2 months
c) 12 months
d) 4 months

Objective 5: Administration Techniques, Managing Symptoms, Adverse Events & Anaphylaxis

Technique

Immunizations can be given through several routes; intramuscular, oral, subcutaneous or intranasal (FluMist) and therefor it is important that nursing professionals review their parenteral skills. If you require a refresher in parenteral administration you should review ANBLPNs Parenteral Medication Administration Module as a first step.

Immunization administration should follow the same rules as medication administration, such as ensuring you are following your 10 rights of medication administration and performing your 3 checks. These areas and more are covered in ANBLPNs Medication Administration Guidelines document.

The Canadian Immunization Guide also provides a checklist to ensure providers are following the correct protocol for vaccine administration such as washing hands, checking expiry dates and appropriate needle length selection. Please review this checklist here: Vaccine Provider Administration Checklist

Doses, gauges, needle lengths and sites for injection can vary depending on the client's age, weight and muscle mass. The recommended sites for IM administration are the deltoid and vastus lateralis for those over the age of one year. The Immunization Action Coalition has developed a guide that immunization providers can refer to when administering vaccines. Please review this guide here: Administering Vaccines: Dose, Route, Site and Needle Size and view **Appendix III: Site Selection.**

Managing Symptoms

Following the administration of any immunization, nursing professionals must educate their clients on the importance of reporting and managing any side effects or adverse reactions that may occur. Additionally, clients must be directed to remain present for at least 15 minutes following the immunization as most adverse reactions will occur during this time frame.

Side effects from a vaccine can range from mild to moderate and include symptoms such as a low-grade fever, headache, and swelling and/or tenderness at the injection site. Nursing professionals should educate their clients on how to manage these symptoms such as applying a cool cloth to the injection site to relieve swelling, encourage movement of the limb that received the injection or taking acetaminophen to help relieve a headache or tenderness at the site. These symptoms usually last for no more than 48 hours and can be managed safely at home. Vaccinations can also cause fear and anxiety in paediatric clients, please view **Appendix IV: Needles Don't Have to Hurt** to help ease the process.

Adverse Event Following Immunization

Occasionally, an **Adverse Event Following Immunization** (AEFI) may occur. An AEFI is an unexpected medical event that occurs after receiving a vaccination, and if not addressed in a timely fashion, has the potential for serious and even life-threatening consequences (WHO, a., 2020). It is a legal requirement to report all AEFIs as this information will help ensure the continued safety of all vaccines that are used in Canada (GNB, 2015). An AEFI must be reported when it results in a serious, urgent or unusual event and the event is associated with having received a vaccine. It is especially important to report these when it results in a life-threatening event and the event is completely unexpected.

Immunization providers must advise clients to contact them, or someone from the health care team, if they experience an adverse event following immunization. Immunization providers must also ensure that they report these AEFIs to their local public health branch using the AEFI form (see below). Immunization providers are required by law to report AEFIs.

All AEFIs should be reported as close to the event as possible and should include the following criteria:

- Client identifiers (name, date of birth, gender);
- Name of vaccine, lot number, site and route and province where given;
- Description of the adverse event (time of symptoms, duration, treatment and outcome);
- Relevant medical history of client (diseases, allergies);
- Any associated events (injury, acute illness); and
- Reporter details (name and contact information)

Nursing professionals should notify their local public health office in writing within 1 week of the AEFI and any AEFI this is life-threatening or resulted in death should be verbally reported within one day to the local public health office and is to be followed by written notification within one week.

Type of Adverse Reaction	Reactions
Injections Site Reactions	• Pain, redness, swelling lasting longer than 4 days • Infected abscesses • Sterile Abscesses • Nodule • Cellulitis
Systemic Reactions	• Rash • Severe vomiting or diarrhea • Swollen/enlarged lymph nodes (Adenopathy) • Persistent screaming/crying (under 2 years)
Allergic Reactions	• Event managed as anaphylaxis (epinephrine given) • Allergic skin reactions (hives) • Oculo-respiratory Syndrome (ORS)
Neurologic Events	• Convulsions/Seizures • Bells Palsy • Guillian Barre Syndrome • Paralysis • Meningitis, encephalitis
Other Events	• Syncope • Arthritis/Arthralgia • Any severe or unusual event

Retrieved from PublicHealthOntario.ca/VaccineSafety

The NB AEFI form and user guide is available on the Government of New Brunswick website:
https://www2.gnb.ca/content/dam/gnb/Departments/h-s/pdf/en/CDC/Epidemiology/NBAEFIFormE.pdf

Anaphylaxis

Anaphylaxis is a rare, unexpected allergic reaction and constitutes a medical emergency. If left untreated it can be fatal. Vaccines have the potential to cause this response and range from mild to severe reactions such as urticaria, hives, wheezing, swelling of mouth and throat, breathing difficulties, hypotension and shock (WHO, b., 2020). All immunization providers must be trained on how to recognize the signs of anaphylaxis, how to administer epinephrine and have immediate access to emergency kits that contain epinephrine.

When anaphylaxis does occur, the patient must be diagnosed properly, treated and managed urgently by trained staff and transferred to a hospital setting.

Anaphylaxis is a severe and rapid reaction that usually occurs within 5 – 30 minutes after an injection. Early signs of anaphylaxis include generalized erythema and urticaria and upper and lower respiratory tract obstruction. More severe cases result in extreme difficulty in breathing, hypotension, and loss of consciousness.

Clinical Progression	Signs and Symptoms
Mild/Early Warning Signs	Itching, rash, swelling around injection site, dizziness
	Flushed, itching skin, nasal congestion, sneezing, painless swelling of mouth or face
	Hoarseness, nausea, vomiting
	Swelling of throat, difficulty breathing, abdominal pain
Late, life-threatening symptoms	Wheezing, noisy, difficulty breathing, collapse, low blood pressure, irregular and weak pulse

(WHO, c., 2002)

Treatment of Anaphylaxis

Once anaphylaxis is diagnosed, you must call 911 immediately and do not leave the client alone under any circumstances. Position the client in the recumbent position and elevate their legs as tolerated to slow the progression. **Immediately** administer epinephrine (adrenaline) IM or SC into an *unimmunized* limb as per the dosing requirements relevant to the clients age.

Failure to use epinephrine promptly is more dangerous than its improper use. There is no contraindication to epinephrine administration in anaphylaxis.

You may also supplement the administration of epinephrine with a dose of diphenhydramine hydrochloride (Benadryl). This can be given to treat symptoms such as pruritus, erythema and urticaria. Oral treatment is preferred for conscious clients who are not seriously ill, because Benadryl is painful when given IM. ***However, never give Benadryl alone or before epinephrine.***

After treatment has been initiated, stay with the client, and document their vital signs and reassess their status frequently. If the client's condition does not improve after the initial dose of epinephrine, ***you may repeat the dose twice, with 5-minute intervals, to a maximum of 3 doses.***

Once the client has been transferred to the hospital, ensure you document the administration of epinephrine and Benadryl on the *Worksheet for Assessment and Treatment of Anaphylaxis* (Section 10, in link below).

Vials of epinephrine should be checked once a month for expiry dates and color. Vials must not be refrigerated, frozen, or be exposed to light and syringes should never be pre-loaded with epinephrine.

For complete information on anaphylaxis treatment related to immunization please review *New Brunswick's Protocol for the Management of Immunization-Related Anaphylaxis in Non-Hospital Settings*

Anaphylaxis must not be confused with fainting. When a person faints, they usually become pale, lose consciousness and collapse. At times, fainting may be followed by seizure activity. If a client faints, they should be placed in the recumbent position and they usually resume consciousness within 1-2 minutes, however, they may remain pale and hypotensive for several minutes after.

Fainting and anaphylaxis are two main reasons that you should advise your clients to remain present for 15-30 minutes following immunization. If a client refuses to remain present following immunization, you must inform the client of the signs and symptoms of anaphylaxis and instruct them to seek medical attention immediately.

Always ensure that clients receive a record of all their immunizations and advise them to keep it in a safe place as they may be required for travel, work or education purposes.

Objective 5: Assess You Knowledge

1) After administering a vaccine, clients should remain present for a minimum of:

a) 60 minutes
b) 45 minutes
c) 15 minutes
d) 10 minutes

2) Which needle gauge should be used for IM vaccine administration?

a) 22 – 25
b) 23 – 25
c) 20 – 23
d) 18 – 21

3) Which of the following is an early sign of anaphylaxis?

a) Swelling of the throat
b) Wheezing and shortness of breath
c) Itchy, raised rash
d) Redness at injection site

4) Following immunization, an anaphylactic response would usually occur within:

a) 12 - 24 hours
b) 60 – 90 minutes
c) 5 – 30 minutes
d) 2 – 4 hours

5) The immediate intervention used for anaphylaxis is:

a) Benadryl
b) Gravol
c) Epinephrine
d) Reactine

6) The use of epinephrine is contraindicated in clients who:

a) are pregnant
b) there are no contraindications
c) are immunocompromised
d) are over the age of 65

Appendix I: Adult Immunizations

ADULT IMMUNIZATION:
What Vaccines Do You Need?

VACCINE	WHO SHOULD RECEIVE IT?
Tetanus (lockjaw)	everyone, every 10 years
Diphtheria	everyone, every 10 years
Pertussis (whooping cough)	everyone, once in adulthood during each pregnancy
Influenza	everyone, annually people 65 years of age and over, annually people at high risk, annually people at risk of spreading disease such as essential service providers
Pneumococcal	people 65 years of age and over; people 18 to 64 with a specific medical condition or situations putting them at increased risk
Hepatitis B	people with medical, occupational or lifestyle risks
Hepatitis A	people with medical, occupational or lifestyle risks
Meningococcal	people with specific medical conditions and people living in communal residences, including military personnel
Measles	people who were born after 1970 and who did not receive the vaccine or get the disease
Mumps	people who have not had the vaccine or the disease
Rubella (German measles)	people who have not had the vaccine or the disease
Varicella (chickenpox)	people who have not had the vaccine or the disease
HPV (human papillomavirus)	females and males 9-26 years of age (may be administered to females or males 27 years and older at ongoing risk of exposure)
Herpes zoster (shingles)	people 50 years of age and older, including people who have had a previous episode of shingles
Travel vaccines	varies by destination - consult a travel health clinic, your health care provider, local public health office or https://travel.gc.ca

Reference: Canadian Immunization Guide, https://www.canada.ca/en/public-health/services/canadian-immunization-guide.html

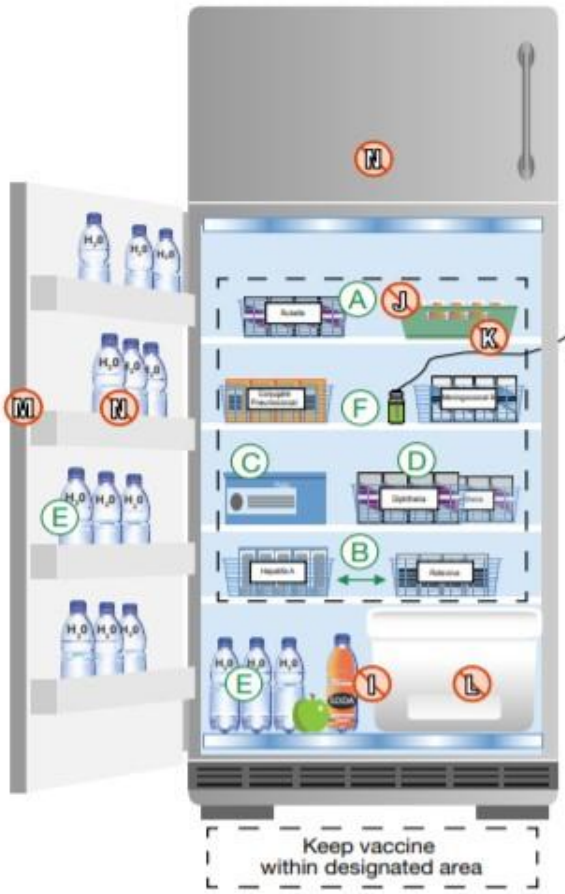
Immunization is not just for kids!

Immunize Canada / Immunisation Canada

CELEBRATING IMMUNIZATION SUCCESS

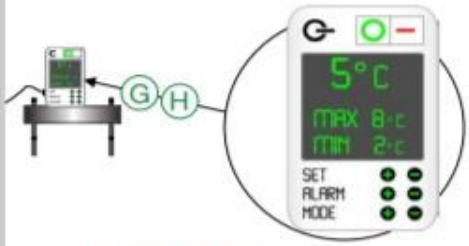
Appendix II: Organizing Vaccine Refrigerators

FIGURE 2: ORGANIZING THE DOMESTIC REFRIGERATOR



DO:

- (A) Place vaccine in breathable plastic mesh baskets and clearly label baskets by type of vaccine
- (B) Keep baskets 5 – 8 cm from walls and other baskets
- (C) Keep vaccine in their original boxes until you are ready to use them
- (D) Keep vaccines with shorter expiration dates to the front of the shelf/basket
- (E) Store full water bottles on empty shelves and on the door
- (F) Place temperature probe/vial in middle of refrigeration unit
- (G) Keep temperature between 2 – 8°C (aim for 5°C)
- (H) Check and log temperature twice a day



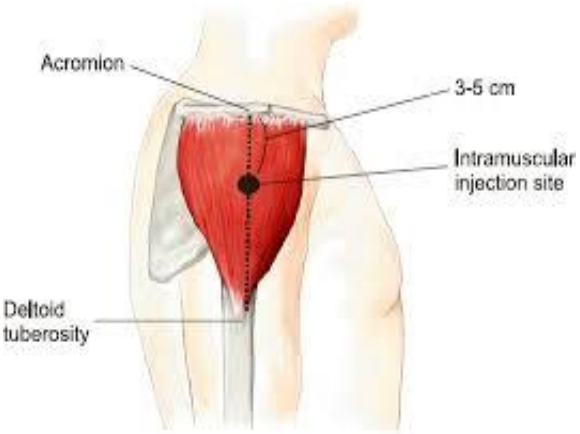
DO NOT:

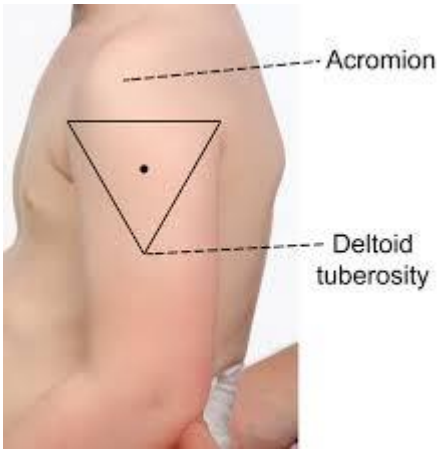
- (I) Store food or drink in refrigerator – only vaccine in vaccine storage unit
- (J) Place vaccine in solid plastic trays or containers
- (K) Store vials out of their original individual packaging
- (L) Place vaccine in veggie bins, drawers or on floor of refrigerator
- (M) Open door more than necessary
- (N) Store vaccine in doors or freezer compartment
- Use manual or cyclic defrost refrigerators

National Vaccine Storage and Handling Guidelines, 2015

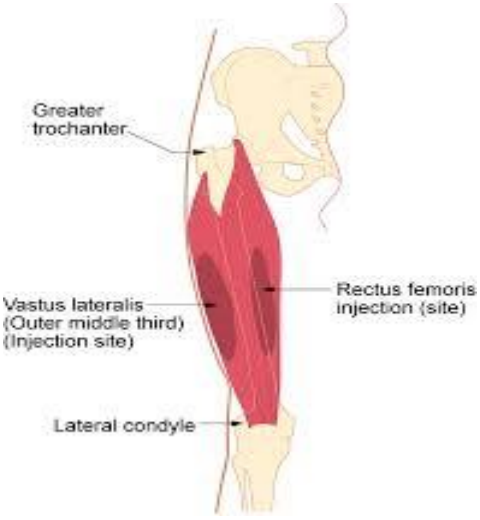
Appendix III: Site Selection

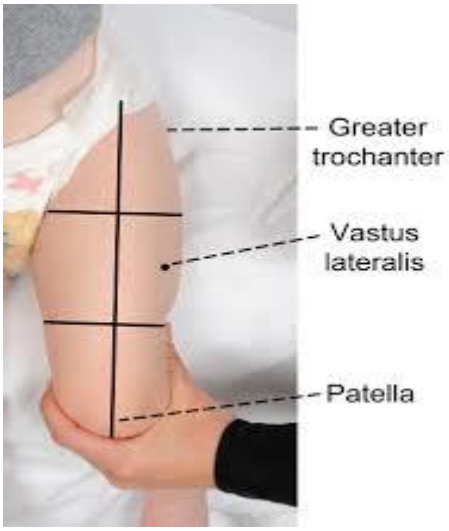
IM Site Selection – Deltoid Muscle



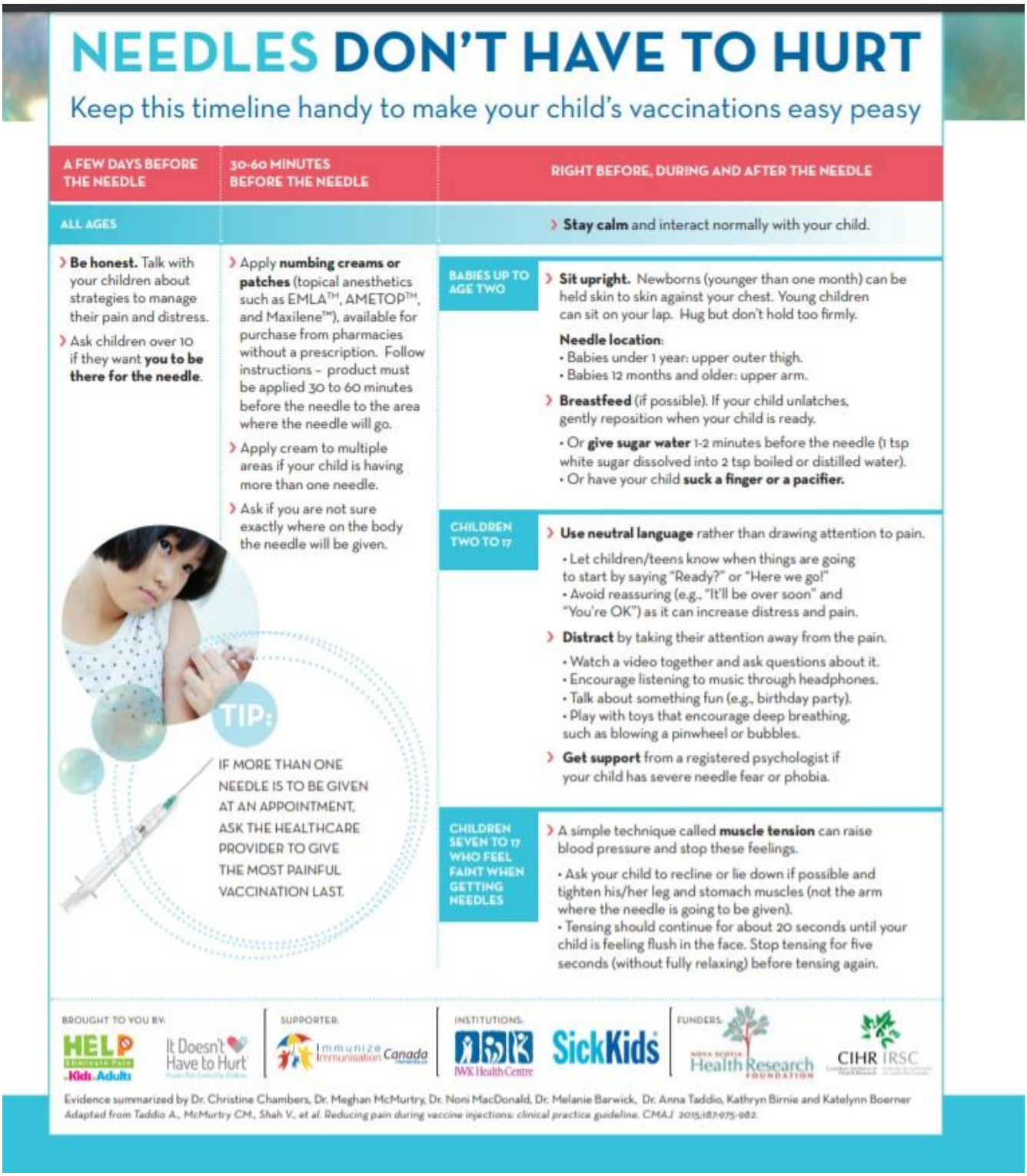


IM Site Selection - Vastus Lateralis





Appendix IV: Needles Don't Have to Hurt



NEEDLES DON'T HAVE TO HURT

Keep this timeline handy to make your child's vaccinations easy peasy

A FEW DAYS BEFORE THE NEEDLE	30-60 MINUTES BEFORE THE NEEDLE	RIGHT BEFORE, DURING AND AFTER THE NEEDLE
ALL AGES		› **Stay calm** and interact normally with your child.
› **Be honest.** Talk with your children about strategies to manage their pain and distress. › Ask children over 10 if they want **you to be there for the needle.**	› Apply **numbing creams or patches** (topical anesthetics such as EMLA™, AMETOP™, and Maxilene™), available for purchase from pharmacies without a prescription. Follow instructions – product must be applied 30 to 60 minutes before the needle to the area where the needle will go. › Apply cream to multiple areas if your child is having more than one needle. › Ask if you are not sure exactly where on the body the needle will be given.	**BABIES UP TO AGE TWO** › **Sit upright.** Newborns (younger than one month) can be held skin to skin against your chest. Young children can sit on your lap. Hug but don't hold too firmly. **Needle location:** • Babies under 1 year: upper outer thigh. • Babies 12 months and older: upper arm. › **Breastfeed** (if possible). If your child unlatches, gently reposition when your child is ready. • Or **give sugar water** 1-2 minutes before the needle (1 tsp white sugar dissolved into 2 tsp boiled or distilled water). • Or have your child **suck a finger or a pacifier.**
		CHILDREN TWO TO 17 › **Use neutral language** rather than drawing attention to pain. • Let children/teens know when things are going to start by saying "Ready?" or "Here we go!" • Avoid reassuring (e.g., "It'll be over soon" and "You're OK") as it can increase distress and pain. › **Distract** by taking their attention away from the pain. • Watch a video together and ask questions about it. • Encourage listening to music through headphones. • Talk about something fun (e.g., birthday party). • Play with toys that encourage deep breathing, such as blowing a pinwheel or bubbles. › **Get support** from a registered psychologist if your child has severe needle fear or phobia.
		CHILDREN SEVEN TO 17 WHO FEEL FAINT WHEN GETTING NEEDLES › A simple technique called **muscle tension** can raise blood pressure and stop these feelings. • Ask your child to recline or lie down if possible and tighten his/her leg and stomach muscles (not the arm where the needle is going to be given). • Tensing should continue for about 20 seconds until your child is feeling flush in the face. Stop tensing for five seconds (without fully relaxing) before tensing again.

TIP: IF MORE THAN ONE NEEDLE IS TO BE GIVEN AT AN APPOINTMENT, ASK THE HEALTHCARE PROVIDER TO GIVE THE MOST PAINFUL VACCINATION LAST.

BROUGHT TO YOU BY: HELP Eliminate Pain Kids Adults; It Doesn't Have to Hurt

SUPPORTER: Immunize Immunisation Canada

INSTITUTIONS: IWK Health Centre; SickKids

FUNDERS: Nova Scotia Health Research Foundation; CIHR IRSC

Evidence summarized by Dr. Christine Chambers, Dr. Meghan McMurtry, Dr. Noni MacDonald, Dr. Melanie Barwick, Dr. Anna Taddio, Kathryn Birnie and Katelynn Boerner
Adapted from Taddio A., McMurtry CM., Shah V., et al. Reducing pain during vaccine injections: clinical practice guideline. CMAJ 2015;187:975-982.

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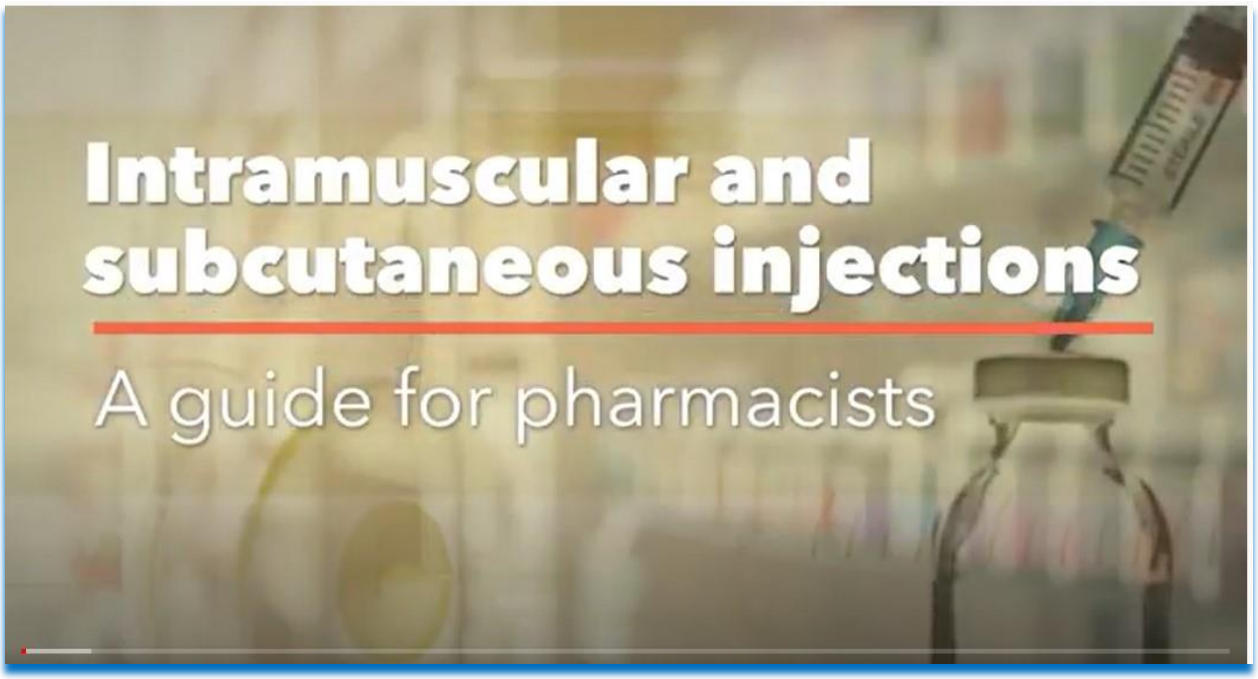
Appendix V: Instructional Video

For complete instructions on the immunization process, please watch this instructional video from Immunize Canada by clicking the link below:

[Subcutaneous and Intramuscular Immunization Injections]



Answer Key:

Quiz 1:

1) D
2) A
3) A
4) B
5) A
6) B

Quiz 2:

1) D
2) A
3) A
4) C
5) B
6) C

Quiz 3:

1) A
2) B
3) TRUE
4) C
5) B

Quiz 4:

1) C
2) A
3) A
4) B
5) C

Quiz 5:

1) C
2) A
3) C
4) C
5) C
6) B

IMMUNIZATION SKILLS CHECKLIST

Name: _____ **Registration #:** _____

ACTIVITY	DATE
CLINIC SET-UP	
○ Ensures anaphylaxis kit is accessible and complete ○ Sets up supplies and equipment ○ Follows all guidelines when storing, handling and transporting vaccines	
CLIENT ASSESSMENT PRIOR TO IMMUNIZATION	
○ Verifies health status of client ○ Checks for contraindications and adverse events history ○ Verifies vaccine history from client/agency record ○ Recognizes and responds to the unique immunization needs of certain population groups	
VACCINE(S) TO BE ADMINISTERED	
○ Determines vaccine(s) to be administered according to guidelines of the New Brunswick Immunization Program	
OBTAINS INFORMED CONSENT	
○ Discusses the implications of the individual's rights, confidentiality, privacy, informed consent and informed refusal	
○ Explains that consent is obtained for a vaccine series and consent is valid until completion of the series	
○ Using scientific knowledge, delivers clear, concise messages about the risks of vaccine-preventable diseases	
○ Using scientific knowledge, delivers clear, concise messages about the risks of vaccine-preventable diseases and the benefits of vaccines	
○ Describes the nature and purpose of the vaccine(s)	
○ Describes the common and expected reactions following immunization	
○ Reviews possible serious or severe adverse events and their frequency	
○ Reviews contraindications and precautions related to vaccine(s) to be administered	
○ Describes the nature and purpose of the vaccine(s)	
○ Provides aftercare instructions	
○ Ensures client has opportunity to ask questions	
VACCINE PREPARATION	
○ Cleans hands	
○ Maintains sterile and aseptic technique	
○ Selects correct vaccine, checks vaccine, expiry date, and dosage X 3 prior to administration	
○ Chooses the correct needle length and gauge for the age and size of the client	

VACCINE ADMINISTRATION	
○ Instructs proper positioning either by showing parent to position and hold child appropriately or by instructing adult to sit and relax site of injection	
Demonstrates accurate administration technique and site location ○ Intramuscular ○ Subcutaneous ○ Intradermal ○ Intranasal (if applicable) ○ Oral (if applicable)	
○ Safely handles and disposes of syringe	
○ Assists parent to comfort child as needed (if applicable)	
○ Demonstrates appropriate knowledge of protocol for the management of anaphylaxis, and describes emergency plan to manage anaphylactic event or a fainting episode	
DOCUMENTATION	
○ Documents consent or refusal for immunization	
○ Documents contraindications	
○ Records an immunization encounter on the appropriate documentation instruments accurately and completely	
○ Records the reason for and planned follow-up action when a scheduled immunization is not given	
○ Demonstrates appropriate knowledge of the process for reporting an adverse event following immunization (AEFI)	
○ Provides immunization record to client	
CLIENT REMINDERS	
○ Explains when next vaccines are due	
○ Reminds client to report possible serious or adverse events	

Immunization Evaluator: _____ _____ _____

Name/Designation Signature Date

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