

Vaccine Administration



Vaccine Administration

- Client Interview (Fit to Immunize Assessment)
- Informed Consent
- Vaccine Administration Process



Vaccine Administration Learning Objectives

The immunizer will be able to:

- explain the best practices in influenza and pneumococcal polysaccharide vaccine management and administration
- discuss the vaccines, their use and potential adverse events following immunization
- administer influenza and pneumococcal polysaccharide vaccine in accordance with national guidelines and local protocols

Fit to immunize assessment

The immunizer will:

- Assess the need for immunization
- Confirm the client has not received a dose of influenza vaccine in the 2023-2024 influenza season or if applicable pneumococcal polysaccharide vaccine in the last five years
- Complete a “fit to immunize” assessment
 - health status today
 - history of allergies
 - previous reactions
 - chronic illness/medications
 - pregnancy

Informed consent

- Clients must give informed consent before immunization
- Prior to immunizing the immunizer must:
 - Determine that the client is eligible (lives, works, goes to school or are visiting Alberta)
 - Review the disease(s)* being prevented
 - Review antigen(s)*
 - Discuss:
 - risks and benefits of getting the vaccine(s)* and not getting the vaccine(s)*
 - side effects and after care
 - how the vaccine(s) is given
 - Provide the opportunity to ask questions
 - Affirm verbal consent

Vaccine management

- All multi-dose vials must be dated upon opening*
 - Multi-dose Fluzone® and FluLaval® Tetra must be discarded 28 days after first puncture
- Check expiry date of all products being administered
- Communicate use of near expiry vials to other staff members, so the vaccine can be used before it expires
- Vaccine should be withdrawn from the vial by the immunizer administering the vaccine
- Do not mix vaccine from different vials
- Do not pre-draw vaccine

* Refer to local protocol for dating vials

Preparing the vaccine

- Determine the appropriate vaccine and route of administration
- Provide appropriate information to client
- Detach self from conversation
- Visually inspect the vaccine. Do not use if:
 - it is discolored
 - you notice extraneous particulate matter present
 - the multi-dose vial/prefilled syringe is defective

Preparing the vaccine (cont'd)

- Determine the site of injection
- For multi-dose vials – select appropriate syringe and needle
 - it is not necessary to change needles after drawing up vaccine, unless the needle is damaged or contaminated
- For prefilled syringes – select appropriate needle to attach to syringe
- Select and read the label on the multi-dose vial or prefilled syringe
- Check the vaccine expiry date
 - if applicable, check the date the multi-dose vial was opened
- For prefilled syringes, ensure the lot number on the syringe matches the lot number on the box (syringe is discarded after administering vaccine and lot number is recorded from the box)

Preparing the vaccine (cont'd)

- For multi-dose vials
 - agitate the vial before drawing up each dose
 - swab the top of the vial and allow it to dry
 - withdraw the appropriate dose of the vaccine
- For prefilled syringes
 - agitate the prefilled syringe before administration
- Recheck the vaccine label
- Check the record to verify you have the correct vaccine for each client (e.g., Fluzone®, FluLaval® Tetra or pneumococcal polysaccharide vaccine)

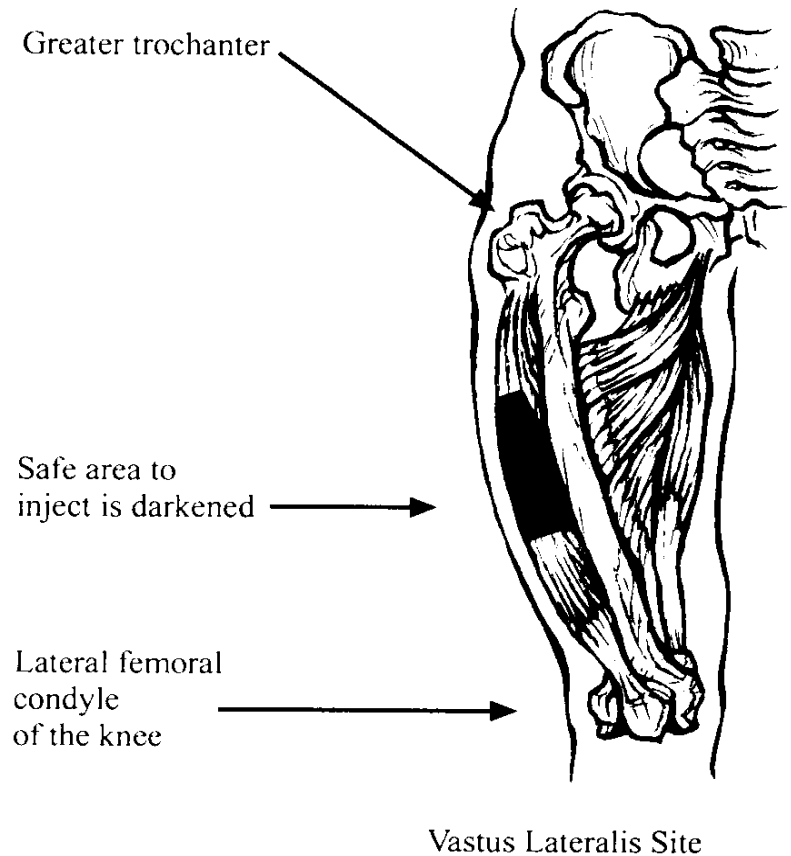
Administering QIV

- Expose and position the client's limb for injection
- Swab the site of injection
- Allow the site to dry for 10 - 15 seconds
- Secure the injection site using the appropriate stabilization technique
- Insert the needle at a 90° angle
- Administer the vaccine with controlled pressure
- Activate the safety engineered device
- Discard the needle and syringe, and empty vaccine vials into an appropriate biohazard container
- Use a cotton ball and apply pressure to the injection site
- Reinforce the 15 minute wait period with the client or parent/guardian

Intramuscular injections

Children less than 12 months old

- 3 mL syringe
- 25G 1” needle
- insert at 90 degree angle vastus lateralis – middle third of anterior thigh and slightly lateral to the midline
- Note: This site can be used for children older than 12 months of age with inadequate deltoid muscle mass. Check with a Public Health Nurse if you are unsure



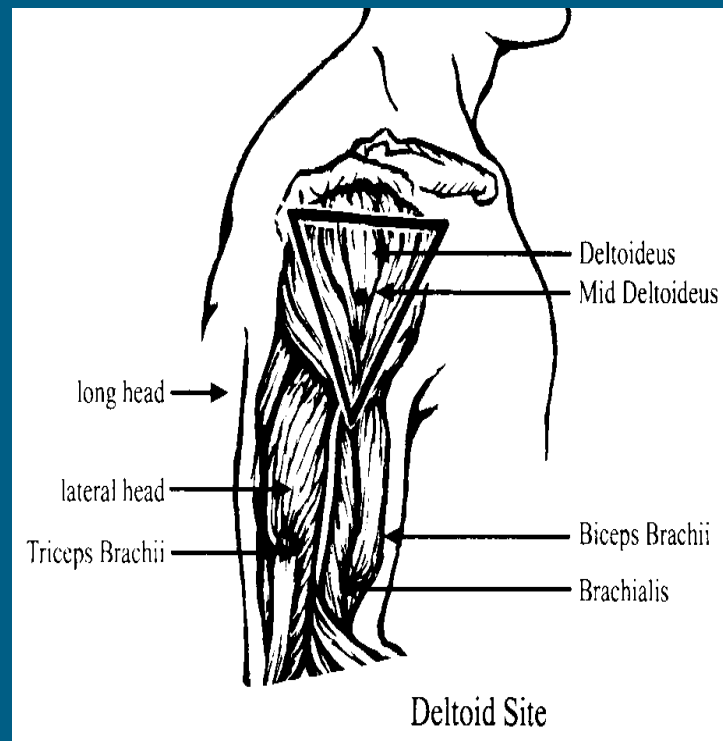
Intramuscular injections

Children 12 months and older

- 3 mL syringe
- 25G - 1" needle
- insert at 90 degree angle
- mid portion of deltoid

Adults

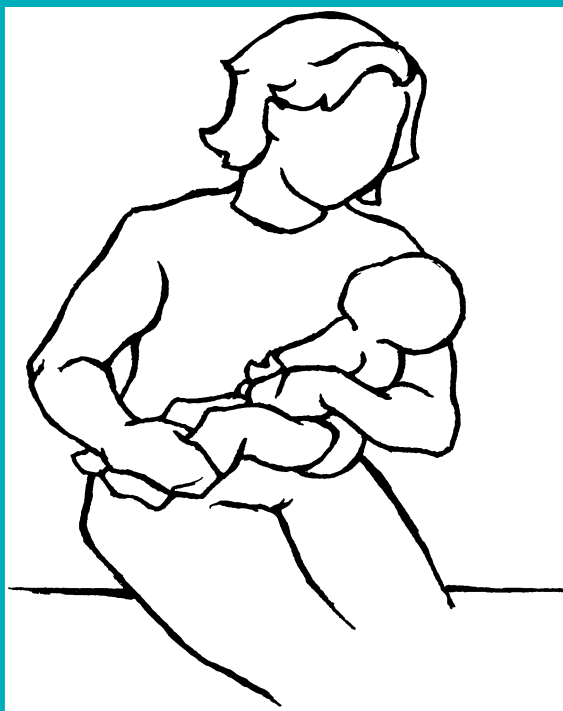
- 3 mL syringe
- 25G - 1" to 1½" needle depending on muscle mass and adipose tissue
- insert at 90 degree angle
- mid portion of deltoid



Limb Integrity

- Do not administer an immunizing agent in a limb that is likely to be affected by a lymphatic system problem, such as lymphedema or mastectomy with lymph node curettage.
- Vastus lateralis is an alternative site for all ages.
- Individuals who present with A-V fistula (vascular shunt for hemodialysis) and those who have had mastectomies with lymph node curettage, axilla lymphadenectomies, limb paralysis and upper limb amputations may have short term or long term circulatory (e.g., lymphatic systems) implications that may impair vaccine absorption and antibody production.

Position & stabilization techniques for vastus lateralis site (infants less than 12 months)



Position & stabilization techniques for deltoid site

Infants 12 months and older

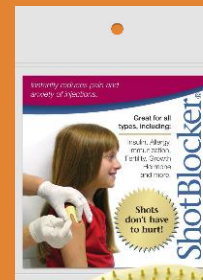
Infants 18 months old and older

("The pretzel hold")



Distraction Tools Not Supported for use in AHS Immunization Clinics

- Providing safe, effective immunizations is the responsibility of and priority for public health nurses.
- Devices that may interfere with injection land marking, stabilization of the limb and infection control measures are not recommended. The use of a product that the **health care practitioner who is immunizing** is not familiar with and that may interfere with usual practice could result in patient or nurse injury and/or improper injection technique.
- There is insufficient evidence to recommend for or against the use of the Shot Blocker® or Buzzy® device.
- The AHS Immunization Program Standard Manual: Standard for Administration of Immunizations # 06.100 provides guidance to public health nurses, and resources for PHNs and parents/guardians to reduce the discomfort caused by immunizations.



<https://www.albertahealthservices.ca/assets/info/hp/cdc/if-hp-cdc-ipism-standard-administration-immunization-06-100.pdf>

Infection Prevention and Control (IPC)

- IPC's mandate is to reduce the incidence of healthcare associated infections in patients, residents, and clients by:
- process and outcome surveillance
- outbreak identification and management
- consultation and education
- guideline, policy, and procedure development
- Research

For more information go to the AHS IPC website at:

<https://www.albertahealthservices.ca/info/page6410.aspx>

Vaccine Administration Knowledge Check

Review Questions

1. Is it important to agitate FluLaval® Tetra and Fluzone® before drawing up each dose?
2. After opening a multi-dose vial, it is important to date it. What is the time frame for expiry for multi-dose influenza vaccine?

Note: Answers can be found at the end of the PowerPoint.

Answer Key

Vaccine Administration Knowledge Check Answers

- 1. Is it important to agitate FluLaval® Tetra and Fluzone® before drawing up or administering each dose?**

Yes. Agitate the vial or prefilled syringe before drawing up each dose.

- 2. After opening a multi-dose vial, it is important to date it. What is the time frame for expiry for multi-dose influenza vaccine?**

Yes. Open vials of multi-dose influenza vaccine must be discarded 28 days after the first puncture.