Steps on How to Withdraw Influenza Vaccine from a Multi-Dose Vial



- Make sure that your work area is clean, and you have the supplies you need (e.g., vaccine vial, syringe, needle, alcohol pad, etc.)
- **2.** Wash your hands with soap and water or cleanse with a sanitizer.



- 3. Check the label and date of the vial to make sure you have the right vaccine that is not expired. If this is the first time using the vial, record the date (day, month and year) on the vial label. (Tip: If the vial label is too small, write the date on a blank sticker and affix to the vial, or record the date on the vaccine box.)
- 4. Remove the cap on the vial if this is the first entry.
- 5. Wipe the surface of the rubber stopper with either an alcohol pad or a cotton pad/swab that has been moistened with 70% isopropyl alcohol and allow this to air dry.
- **6.** Shake the vial before each use to ensure uniform distribution of the suspension.
- 7. Inspect the medication in the vial to ensure there are no changes in colour, cloudiness, presence of particulate matter, or any other changes.



8. Prior to entering the vial: With the needle attached to your syringe, pull back on the plunger to fill the syringe with a volume of air equal to the dose to be removed.



Place the vial right side up and hold with one hand. With the other hand, making sure that the needle bevel is facing up and away from the stopper, insert the needle at a 45°-60° angle applying a small amount of pressure as the needle enters the stopper and slowly increasing the angle to 90° as the bevel passes through the centre of the rubber stopper to prevent coring. Take care not to touch or bend the needle. (Tip: If the vial has been punctured before, avoid puncturing the stopper at the same site(s).)



10. Slowly inject the air into the vial.

11. Invert the vial and hold it up in the air. Make sure that the needle tip is in the liquid.



12. Pull back on the plunger to withdraw the appropriate dose of vaccine.



- 13. If there are any air bubbles, stabilize the vial and syringe with one hand and using the other, tap the side of the syringe with your finger to move the air bubbles to the top and gently push on the plunger to expel the bubbles back into the vial. Then, with your needle tip in the vaccine, draw up the appropriate amount to get the required dose. If there are a lot of bubbles, push all the vaccine back into the vial and try drawing up the vaccine again slowly and tapping out air bubbles as above until you have the right amount of vaccine drawn up with no air bubbles in your syringe.
- 14. Remove the needle from the vial.

 (Please note, it is not necessary to change the needle between drawing up the vaccine and administering it to the patient. The needle should only be changed if it is bent, damaged or contaminated.)
- **15.** Return the multi-dose vial immediately to the refrigerator.

References:

BC Centre for Disease Control. Communicable Disease Control Manual. Chapter 2. Immunization. Appendix B – Administration of Biological Products. http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%202%20-%20Imms/Appendix_B_Administration.pdf. Published August 2019. Accessed October 10, 2019.

MedlinePlus. Drawing medicine out of a vial. National Institutes of Health/U.S. National Library of Medicine.

https://medlineplus.gov/ency/patient instructions/000530. htm. Published January 14, 2018. Updated October 2, 2019. Accessed October 10, 2019. Accessed October 20, 2019. Accessed Oc

Alberta Health Services. Standard for the Administration of Immunizations: Section 6: Vaccine Administration Standards. https://www.albertahealthservices.ca/assets/info/hp/cdc/if-hp-cdc-ipsm-standard-administration-immunization-06-100pdf. Published July 1, 2013. Updated May 1, 2018. Accessed October 10, 2019.

Flulaval Tetra (2019-2020). In: RxTx eCPS. Ottawa, ON. Canadian Pharmacists Association. [Updated April 12, 2019; Accessed October 10, 2019]. https://myrxtx.ca.

Fluzone® Quadrivalent. In: RxTx eCPS. Ottawa, ON. Canadian Pharmacists Association. [Updated April 2018; Accessed October 10, 2019] https://myxxx.ca.

Patel J, Smith CC. Vial coring. Pain Med. 2019;20(9):1841-1842. doi:10.1093/pm/pnz132.