



**EVM  
Good  
Practice**

## JOB AIDE

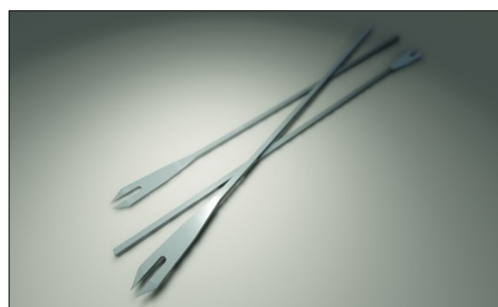
# How to use a bifurcated needle to perform multiple puncture vaccination technique



## Overview

Vaccines<sup>1</sup> that use a multiple puncture technique are administered directly through the skin (i.e., percutaneous route) of the deltoid area on the upper arm with a sterile bifurcated needle.

A bifurcated (i.e. two tipped) needle has a flattened end cut into two short prongs. When the fork of the needle is inserted into the vial, the gap between the prongs holds a droplet of vaccine sufficient for vaccination.

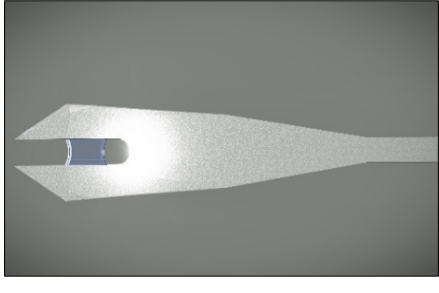






## How do you perform multiple puncture vaccination with a bifurcated needle?

- 1 Bring the reconstituted vaccine to ambient temperature (20-25°C) prior to administration. Visually inspect the vaccine in the vial to ensure absence of discoloration or any particulate matter. If any precipitates have formed in the meanwhile, swirl the vial gently to re-dissolve them, without allowing the reconstituted vaccine to contact the rubber stopper.
- 2 After the vaccine is prepared, visually inspect the vaccination site, which is the deltoid muscle on the outer side of the upper arm. No skin preparation is necessary unless the skin is visibly dirty. Clean the dirty skin with water or alcohol swab, as recommended by national or local policies. The vaccine is inactivated by alcohol, therefore, ensure the alcohol on the skin is completely dry before administering the vaccine.
- 3 Before vaccination and after washing hands, inspect the packaged needle to ensure that the package is intact. If the package appears damaged or open, do not use the needle and dispose it in a biohazard sharps container.
- 4 Remove the vial stopper and then remove the needle from the package. Do not touch the pointed fork of the needle. Do not insert into the vial if the needle has touched the skin.



<sup>1</sup> ACAM2000 (2<sup>nd</sup> generation), and attenuated LC16 (3<sup>rd</sup> generation) smallpox vaccines.

5	Insert only the fork of the bifurcated needle into the vaccine solution in the vial and withdraw. A droplet of vaccine should be contained between the prongs.	
6	Hold the vaccine recipient's arm from underneath with one hand, positioning it to maintain a horizontal surface where the vaccine will be placed, and gently tense the skin of the arm. Position the wrist of your other hand holding the needle over the recipient's arm so that the needle is held at a right angle (90°) to the skin, held between the thumb on one side and index and middle finger on the other side.	
7	Touch lightly the skin surface with the needle to allow the droplet of the vaccine to slide on the skin.	
8	Resting the inside of your wrist on the vaccine recipient's arm and holding the needle at the right angle (90°) to the skin, rapidly prick the skin 15 times through the deposited drop of the vaccine within a diameter of 5 mm. Do this forcefully enough to puncture the skin so that a trace of blood (1 or 2 drops) appears at the puncture site within 20-30 seconds.	
9	Discard the needle in the biohazard puncture-resistant sharps container (i.e. safety box) and close the vaccine vial by reinserting the rubber stopper unless it will be immediately used to vaccinate another person.	
10	Loosely cover the puncture site with sterile gauze and use medical adhesive tape to keep the bandage in place. Advise the vaccine recipient on how to care for the puncture site until the scab forms and falls off (2-3 weeks).	

## Advising the vaccine recipient on how to care for the vaccine puncture site

Vaccinia virus can be spread by touching puncture site (i.e. the area where the live attenuated vaccinia virus vaccine is administered) before it heals or by touching the dressing/ bandages or clothing that have been in contact with the puncture site. To prevent this spread, after vaccination it is necessary to cover the puncture site with clean gauze and advise the vaccine recipient on the following:

Keep the puncture site dry, loosely covered with a sterile gauze that is kept in place with adhesive tape.

Change the gauze every 2 to 3 days. If it gets wet or dirty, change it immediately.

When bathing, protect the puncture site from getting wet (e.g. cover the area with waterproof cover/bandage or a clean plastic securely placed).

Before disposing, put the used gauze/cover in a plastic bag.

Do not touch or let others touch your puncture site, gauze or covers that have been in contact with it. If you happen to touch them, immediately wash your hands.

Do not put creams, ointments or any other substance on the puncture site.

Wash the clothing, sheets, towels that come in contact with the puncture site in hot water with detergent.

It is normal for a scab to form. Do not pick the scab. It will fall off naturally in 2 to 3 weeks after vaccination. When the scab falls off, put it in a plastic bag and throw away.