



## HIV VACCINE TRIALS NETWORK

# Questions and answers: HVTN 078 vaccine study

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### 1. What is the HVTN 078 study?

HVTN 078 is the name of a clinical trial to test the safety and immune response of 2 experimental HIV vaccines. The experimental vaccines used in this trial are described in Question 4 below.

The products used in this trial are not produced from live HIV or from HIV-infected human cells.

*These study vaccines cannot cause HIV infection.*

### 2. Who is conducting this study?

This trial is sponsored by the Division of AIDS (DAIDS), within the National Institute of Allergy and Infectious Diseases (NIAID) at the National Institutes of Health (NIH), an agency of the US Department of Health and Human Services (DHHS). This trial is also sponsored by EuroVacc Foundation (EuroVacc), a nonprofit organization registered in the Trade Register of the Canton de Vaud, Switzerland. EuroVacc is dedicated to the development of safe and effective HIV vaccines for use throughout the world.

The HIV Vaccine Trials Network (HVTN) will run the trial in consultation with DAIDS. The HVTN is a global partnership of researchers, government agencies, pharmaceutical companies, academic institutions, and community members. The HVTN is dedicated to conducting international clinical HIV vaccine studies in the safest, most efficient, most ethical, and most scientifically rigorous way possible.

### 3. What is a vaccine study?

A vaccine is given to people to prevent infection or fight disease. Currently there is no licensed vaccine against HIV. In order to find an effective HIV vaccine, researchers need to test the experimental vaccines that seem most likely to help the body fight HIV. A vaccine trial is a way to test an experimental vaccine to see if it is safe to give to people. A vaccine trial can also be used to find out if an experimental vaccine might work to prevent or fight HIV.

### 4. What kind of study vaccines are being tested in HVTN 078?

HVTN 078 tests 2 experimental vector vaccines named VRC-HIVADV014-00-VP (rAd5 vaccine) and NYVAC- HIV- B (NYVAC-B vaccine). A *vector* is a packaging system that can help deliver the vaccine into the correct part of the body or into the correct cell to create an immune response.

These are experimental preventive HIV vaccines. From here on, we will call these vaccines the “rAd5 vaccine”, the “NYVAC-B vaccine”, or the “study vaccines.”

The rAd5 vaccine was made by the Vaccine Research Center (VRC), which is part of the US National Institutes of Health (NIH). The rAd5 vaccine is made out of a virus called adenovirus type 5. Adenoviruses are common. They cause colds and respiratory infections. However, the rAd5 vaccine in this study has been changed so that it cannot give you a cold or respiratory infection.

The NYVAC-B vaccine was made by EuroVacc. The NYVAC-B vaccine is made out of a virus called vaccinia. It is similar to the smallpox vaccine that has been used worldwide, and cannot give you smallpox.

**5. Are these study vaccines safe?**

Scientists believe that there are no serious safety risks with the study vaccines. Based on the data from animal studies, scientists believe that the study vaccines are suitable for use in human trials. Both the rAd5 vaccine and the NYVAC-B vaccine have been given to people before.

But there is always the possibility that there could be problems no one expected. That is why these study vaccines, like any new drug or vaccine, need to be tested in people in a clinic setting. Each participant's health and safety will be watched closely throughout the trial.

**6. Are there any other procedures in this study?**

This study also involves a gastrointestinal biopsy and collection of mucosal secretions, described below in Questions 7 and 8. These procedures are generally safe. There are, however, some risks involved with these procedures. The risks are described in the study consent form.

To lower the already-low risk of complications from these procedures, especially the biopsy, the study participants will have restrictions on certain sexual activities before and after the procedures. (*These restrictions are only for a limited time.*) They will also be asked to avoid certain types of common medications for a limited time before and after these procedures.

**7. What is Gastrointestinal (GI) mucosal biopsy?**

A GI mucosal biopsy is a procedure that allows a doctor to look at the colon and small intestine, and take small tissue samples that can be examined in a laboratory. The colon and small intestine are part of your digestive system. The colon is the intestine just above the rectum. The small intestine is above the colon.

In this procedure, a specialized doctor called a gastroenterologist will insert a flexible, lighted tube into the participant's rectum and slowly guide it into the colon and small intestine. The procedure takes about ½ hour. During the procedure, you might feel pressure and slight cramping in your lower abdomen. The gastroenterologist is able to take the biopsy samples using tools attached to the lighted tube. Each sample will be about the size of a grain of rice.

The mucosal tissue samples from the biopsy will be frozen or preserved. They will then be sent to a central laboratory for analysis.

**8. What is "collection of mucosal secretions"?**

Viruses like HIV can enter the body through a special skin called the mucosa. That is the skin that is found in the intestines, as well as other areas of your body, like the eyes, mouth, and vagina.

To see if the study vaccines can cause immune response in the mucosa, the staff at the clinic will collect samples of the fluids produced by the mucosa, and test them.

We will collect salivary fluid by asking the participants to produce a small amount of saliva (about a teaspoon or less) into a collection container. If necessary, the clinic staff can provide chewing wax, which helps produce saliva.

For women, cervical fluids will be collected by inserting a speculum into the vagina and placing a special piece of filter paper in the opening of the cervix. This will only be done in women who have had a Pap smear within the last 3 years and the most recent result was normal.

Rectal fluids are collected by wiping the lining of the rectum with a cotton swab, sponge, or brush. Alternatively, the staff at the clinic may place a special strip of absorbing paper inside the rectum for about 5 minutes. An anoscope, a plastic viewing tube 2-3 inches long and ½ inch wide, may be inserted into the rectum so that the clinician can see better when doing this procedure.

Study volunteers can decide not to give these samples and still be in the study.

**9. Can these study vaccines cause HIV infection?**

It is *impossible* to get HIV infection or AIDS from these study vaccines. These vaccines are made in a laboratory and contain only synthetic pieces of HIV. They are not made from live HIV, killed HIV, or HIV-infected cells. Therefore, there is no way they can infect you or cause you to give infection to someone else.

*These study vaccines cannot cause HIV infection.*

**10. How could the study vaccines or procedures help prevent HIV/AIDS?**

The study vaccines are designed to mimic HIV. In doing this, the vaccines may cause a response from a person's immune system. During this response, the immune system may learn to recognize HIV without being exposed to the actual virus.

Because most people are exposed to HIV on their penis, vagina, or rectum, it is important to learn more about vaccine effects in these locations and in other similar locations. Some of the tests we do in this study will help us understand those effects.

If a person who has received the study vaccines is later exposed to HIV, hopefully the immune system would be prepared to respond. This immune preparation from the vaccines may reduce the damage that HIV can do to the body. However, it is not known if the vaccines will prevent HIV/AIDS. More clinical trials need to be done to learn if the vaccines work.

It is important to remember that being given a study vaccine does not mean a participant is protected from HIV infection. Participants are counseled on how to avoid behavior that will put them at risk of HIV infection.

**11. Why is this study being done?**

This is a phase 1b trial, meaning the study vaccines have been tested in the laboratory, in animals,

and in other clinical trials in people. These people did not show any serious side effects from the vaccines.

Based on the research that has been done so far, the study vaccines have shown promising characteristics. Researchers are interested in finding out more about their potential.

**12. How many people are in this study?**

The trial will involve 80 participants: 75 participants will receive the vaccines and 5 participants will receive a placebo of sterile salt water.

**13. Who is eligible to participate in HVTN 078?**

All participants must meet certain criteria to be eligible for the trial.

Participants must be healthy adults who are between 18 and 45 years old and HIV negative (free of HIV infection).

Potential participants are asked about their medical history and are given a physical examination. They then have blood and urine samples taken for routine testing. They are also asked about their sexual activity and drug use.

People who want to join the trial and were born female will be given a pregnancy test. Those who are pregnant or breastfeeding are not eligible to join. Anyone in the trial who was born female and who is capable of getting pregnant must agree to use effective birth control starting at least 21 days before the first injection and continuing until 6 months after the last clinic visit.

All volunteers are tested to ensure they are HIV negative. A volunteer who is HIV positive at screening cannot enroll in the trial.

**14. When and where is this study being conducted?**

HVTN 078 is taking place in Lausanne, Switzerland.

**15. How will the safety and rights of participants be protected?**

The HVTN works hard to protect the safety and rights of the participants. Before they join the trial, volunteers are given information about HIV and AIDS, about the reasons for the trial, about possible risks and benefits, and about trial procedures. The clinic staff allows plenty of time to talk with volunteers, answer their questions, and give information in writing.

After the trial has been fully explained, volunteers are asked to sign an informed consent form. They sign this form before being screened for eligibility and before enrolling. The informed consent form helps confirm that participants have made an informed decision about joining the trial. Volunteers will have plenty of time to think about whether they want to join the trial. They may decide not to enroll. If they do enroll, they may still leave the trial at any time without losing the benefits of their standard medical care.

During the trial, the clinic staff monitors participants to make sure the study vaccines are not causing them problems. Participants will be given any new information that could affect whether they want to stay in the study.

Participants are reminded often that being in a vaccine trial does not mean they are protected from HIV. They are counseled at every clinic visit on ways to avoid HIV. (This counseling might include, for example, talking about correct condom use.) It is important for participants to understand that any new experimental vaccine may have both medical and nonmedical risks.

**16. Could the study vaccines cause a positive result on an HIV test?**

Some experimental vaccines may make a trial participant test positive on an HIV antibody test, even if the participant is not infected with HIV.

One way vaccines can create an immune response is by causing the body to make antibodies. Antibodies are made by the body to fight infection. Common HIV tests look for antibodies against HIV. This means that after a participant gets an experimental HIV vaccine, a standard HIV test may say the person has HIV, even if that isn't the case. This result is called "vaccine induced seropositivity."

This clinic has special HIV tests that look for the virus itself instead of looking for antibodies. These tests can be used to determine if a positive test result is due to the vaccine or a true infection.

No health problems are associated with a positive HIV test result that is caused by a vaccine. But someone who gets that type of test result may be treated unfairly by others. People with a positive HIV test, even a vaccine-induced positive, are not allowed to donate blood. They may also have problems with their relationships with friends and family. The clinic staff can help with any such problems. Services exist to help any study participant with a vaccine-induced positive HIV test result.

**17. How long will it take to find out if the study vaccines work?**

It could take several years to find out if the study vaccines work. These study vaccines would need to be investigated in other clinical trials—phase 2 and phase 3 studies, for example—to test safety in more people, to get a better idea of whether the immune system responds to the vaccines, and to see if the study vaccines help prevent HIV infection. The results of HVTN 078 will help researchers determine whether they should proceed with other trials. Participants who received the study vaccines in HVTN 078 will not be eligible for any future trial of these products.

**18. Who reviewed and approved this study?**

The study vaccines are considered investigational, meaning they are only allowed to be used in research. Swissmedic and the CHUV ethics committee have given the approval to conduct the tests of these vaccines on human subjects. The Protocol Team (the people who designed the trial) also carefully reviewed the information about the study vaccines before deciding to begin the trial.

The safety and rights of participants in HVTN 078 are monitored by an Independent Ethics Committee, the "Comité d'éthique pour la recherche clinique de la Faculté de Biologie et de Médecine de Lausanne." The safety of the trial is also monitored by Swissmedic.

Community members are involved throughout the trial to ensure that the rights of participants are being protected and that their needs are being met.

**19. For more information**

About the HIV Vaccine Trials Network: [www.hvtn.org](http://www.hvtn.org)

If you have additional questions that were not answered by this document, please ask us.

You can contact: