

Public Health in the News

Two promising new HIV vaccines tested in SA

In South Africa, the HIV pandemic is being tackled with new fervour – with two new vaccines that work in different ways being tested here. This may lead to the first vaccine licence ever awarded to South Africa.

Local and overseas scientists involved

Prof Linda Gray, president of the South African Medical Research Council and Dr Larry Corey from the Fred Hutchinson Cancer Research Centre in the USA made the announcement in Cape Town on Monday. The clinical tests form part of the international HIV Vaccine Trials Network, costing about \$100 000 million and supported by various organisations and institutions. Scores of local and overseas scientists are involved in the process.



In the first clinical trial which has already started, researchers adapted a vaccine that was tested in Thailand to South Africa's HIV strain. A substance that strengthens the effect of the vaccine on the body was also added. The first group of 252 people in South Africa are already involved in the study and will receive eight vaccinations during a period of one-and-a-half years.

Yearly booster injection

In the Thai study, the efficiency of the vaccine was reduced to 31.2% after three-and-a-half years. After a year it was still 60% effective. Gray explained that they will administer a booster vaccine within a year to make it more effective. If the results show promise, we will involve 5,000 people next year and "we hope to have the results by 2020. It will be the outcome of work started here already in 2009," she said.

This vaccine (RV144) works in the same way as all other vaccines: The body has to manufacture antibodies to attack the pathogen. It appears that in the case of HIV it might be necessary to administer a yearly booster injection because of decreasing immunity. The second vaccine will involve 3,900 people in America, South America and Africa South of the Sahara. This will include clinical areas across South Africa.

These tests will start in January. "We are optimistic that it will work, but one must never underestimate a virus," Corey said.

The results of this study will be available by the end of 2018.

Sources: [Health24, 20 October 2015](#)

Context

South Africa has made significant strides in HIV prevention and treatment in the past decade. Mother-to-child transmission of HIV being has dropped to 1.5% – as many of 30% of HIV-infected mothers transmitted the virus to their babies in the early 2000s. The latest rate is lower than the national target of 2%, according to the 10th edition of the District Health Barometer, an annual publication that provides a detailed breakdown of public health services in the country. The publication also notes that 91% of HIV-positive pregnant women in government clinics are on antiretroviral therapy – "the highest level since 2011/12".

An estimated 6.8 million people in South Africa are HIV positive. Although there has been a momentous increase in access to treatment, the publication notes with concern the continuing spread of HIV. "There were 469 000 new infections recorded at the end of 2012, with particularly high incidence levels among young women aged 15–24 years. Fuelling the spread of the disease is the reported decline in knowledge levels about HIV, and an increase in risky sexual behaviour."

According to the District Health Barometer, South Africa has a high incidence of both HIV and tuberculosis (TB). It is the leading cause of death in people with HIV. The World Health Organisation estimates that people with HIV are between 20 and 32 times more likely to develop TB than those without HIV.

Source: [Mail & Guardian, 21 October 2015](#)

WAMTechnology is a provider of technological solutions and specialist engineering services in both the health and water sectors. WAMTechnology has been responsible for managing, operating and supporting the South African electronic registers for both TB and drug-resistant TB on behalf of our National Department of Health, as well as developing the electronic HIV register for the University of Cape Town.

CONTACT US: Tel: +27 (0)21 887 7161

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