

Microbicides

What are microbicides?

Microbicides (pronounced my-crow-biss-sides) are products being developed to reduce the risk of HIV transmission sexually. Vaginal microbicides could take the form of gels, films, vaginal rings or vaginal tablets. Microbicides, along with HIV vaccines, are among promising new prevention technologies being developed to help prevent the spread of HIV.

Although work is being done to develop rectal microbicides, current research and development largely focuses on vaginal microbicides. These products primarily will be for use in the developing world where HIV prevalence is highest and existing prevention methods have not successfully stopped the spread of HIV. This fact sheet reflects this focus on vaginal microbicides.

Why are microbicides needed?

According to UNAIDS, every region of the world has been affected by HIV, but the epidemic has hit sub-Saharan Africa hardest. Of the more than 33 million people worldwide living with HIV, 22.5 million are in sub-Saharan Africa and women comprise about 60 percent of those living with HIV in sub-Saharan Africa. Recent evidence from the World Health Organisation shows that HIV is the leading cause of death amongst women of reproductive age globally.

Women are more vulnerable to HIV infection due to biological and cultural factors. Existing prevention methods, which focus on male or female condom use, delayed sexual debut, fidelity and abstinence, have had some effectiveness in reducing the spread of HIV. But many women are not able to negotiate condom use and may not be in mutually monogamous relationships.

Female-initiated microbicides would give women a new prevention option and empower them to protect themselves from HIV. Microbicides also could help advance the Millennium Development Goal of slowing the spread of HIV.

How will vaginal microbicides work?

Microbicides formulated for vaginal use could inactivate HIV in the vagina, prevent the virus from attaching to cells or stop it from spreading to other cells – or some combination of all three actions. Some microbicide candidates focus on the first two of these methods. Others are microbicides being formulated for sustained protection – daily, monthly or even less frequently. Some microbicide candidates also might prevent other sexually transmitted infections.

How will women use microbicides?

Initially, microbicides probably will be delivered as a gel or via a vaginal ring, though other methods of delivery are being considered, such as films, soft gel capsules or vaginal tablets. Social and behavioural research is also underway to identify women's preferences and to ensure the products will be acceptable and used by those who need them most.

When will microbicides be available?

There are several microbicide compounds in clinical testing. Early generation microbicides were designed to prevent HIV from attaching to cells or by creating conditions that inhibit infection. Unfortunately, large-scale efficacy trials of these products did not show that they reduced the risk of HIV infection.

Next-generation microbicides are based on antiretroviral drugs currently used to treat HIV. These microbicide candidates are in various stages of pre-clinical and clinical research;

Get involved

NAT (the National AIDS Trust) is the UK partner of the International Partnership for Microbicides.

If you would like further information about the development of microbicides, please contact Nicola Jacobs at nicola.jacobs@nat.org.uk or +44 (0)20 7814 6729.

In addition, the organisations listed overleaf can provide up-to-date information about global, regional and national microbicide efforts.

NAT (National AIDS Trust)
New City Cloisters, 196 Old Street
London EC1V 9FR

T : +44 (0)20 7814 6767
F : +44 (0)20 7216 0111
E : policyandcampaigns@nat.org.uk
W : www.nat.org.uk