

Cervical cancer

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Human *papillomavirus* (HPV) , is the underlying cause of cervical cancer. Infection with HPV is very common in the general population and is slightly more common in women with HIV. There are many different strains of HPV and only a few of these appear to cause cancer. Some strains of HPV cause genital warts, but these are not the strains associated with cervical cancer.

In most cases, the body is able to clear infection with HPV, even of those strains that could cause cancer. However, HIV-positive women, particularly if they have a weak immune system, are less likely to be able to clear HPV infection naturally. Nevertheless, it is worth noting that even if high-risk strains of HPV persist, they usually do not cause cancer.

Women who became sexually active at a very young age or who have had many sexual partners have a higher risk of being infected with high-risk strains of HPV.

Women with HIV are especially likely to benefit from cervical screening and treatment.

Screening

Before cervical cancer develops, cells in the cervix change over many years. Lesions can develop, sometimes called CIN (cervical intraepithelial neoplasia). They are graded according to their stage – CIN I, CIN II, and CIN III.

Cervical screening tests (sometimes called Pap smears) can detect these cell changes in the cervix before cancer develops. The test involves taking a sample of cells from the lining of the cervix. In the UK, all women between the ages of 25 and 64 are recommended to have regular cervical screening, usually every three years.

Women with HIV are advised to have screening more frequently . HIV-positive women should have a cervical smear when they are first diagnosed with HIV, six months after this, and then every year.

Usually cervical screening will be arranged through your GP. Women are automatically sent a letter asking them to make an appointment for cervical screening every three years, but you should be able to arrange to have annual screening with your GP and your clinic can help you to arrange this. Sometimes HIV clinics offer cervical screening, so if you would prefer to have screening done there you could talk to your doctor, or someone else at the clinic, about your options.

When you have your screening test, you should be told by the nurse or doctor when and how to expect the results. You may be asked to come back for further tests if any abnormal cells are identified or if the test doesn't give a clear result.

The cervix can be examined in more detail using a magnifying instrument called a colposcopy. At the same time, small samples of tissue can be removed and examined under a microscope to see if cell changes have occurred.

Symptoms of changes to cells in the cervix include bleeding after sex, bleeding between periods and an unusual discharge from the vagina. However, even if you do not have symptoms, regular cervical screening is strongly recommended.

Treatment

The earlier the treatment is provided the better, and if caught early the treatment of cell changes in the cervix can be highly successful.

Lesions can be treated by non-surgical means such as freezing with liquid nitrogen or laser treatment. There are also simple surgical procedures that involve removing a layer of cells.

If the lesions are more advanced or cancer develops it is likely that surgery will be combined with local radiotherapy and chemotherapy. There is some evidence that women who take HIV treatment after treatment for cervical

cell changes or cervical cancer and have an undetectable viral load are less likely to develop a recurrence of the condition.

Vaccine

Two vaccines have been approved that provide some protection against the strains of HPV that are associated with the highest risk of cervical cancer. NHS guidance suggests that one of these should be provided to girls before they are sexually active. Clinical trials are underway to see how safe and effective one of the vaccines is in women with HIV.