**Daily Mail**

**HIV drug could prevent 'cervical cancer by killing off virus that causes disease'**

**Sentences – 24**

**Words - 506**

By [Daily Mail Reporter](http://www.dailymail.co.uk/home/search.html?s=y&authornamef=Daily+Mail+Reporter)  
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* **Hope for patients as cervical tumours caused by sexually transmitted HPV soar as new cases of HIV fall**

Threat: The human papilloma virus, which causes cervical cancer, can be eliminated by drugs that tackle HIV

A simple treatment using a widely prescribed HIV drug could prevent cervical cancer, research suggests.

It raises new hope for victims as the number of cervical cancers caused by the sexual transmission of human papilloma virus (HPV) soar - while the number of new cases of HIV are falling across the globe.

HPV is now the most common sexually transmitted infection and the most common cause of cervical cancer.

It also triggers significant numbers of mouth and throat cancers in both men and women after it is transmitted through oral sex.

Earlier research suggests that one in six British women have HPV.

Around 3,000 women in the UK each year contract cervical cancer and it accounts for more than 900 deaths.

The drug lopinavir kills cells infected by the HPV while leaving healthy cells relatively unharmed, scientists have found.

Researchers from the University of Manchester, working with colleagues in Canada, made the discovery after carrying out laboratory tests on cell cultures.

Dr Ian Hampson, from the university's school of cancer and enabling sciences, said: ‘This is a very significant finding as these cells are not cancer cells but are the closest thing to being like the cells found in a pre-cancerous HPV infection of the cervix.

‘In addition we were also able to show that lopinavir kills these HPV-infected cells by re-activating a well-known antiviral system that is suppressed by HPV.’

To be effective as a treatment, the drug would have to be administered in doses 10 to 15 times that taken by HIV patients.

This would mean applying it as a cream or pessary, rather than swallowing a tablet, said Dr Hampson.

The research is published today in the journal Antiviral Therapy.

Co-author Dr Lynne Hampson said: ‘These results are very exciting since they show that the drug not only preferentially kills HPV-infected non-cancerous cells by re-activating known antiviral defence systems, it is also much less toxic to normal non-HPV infected cells.

Pain: The cervical cancer vaccination is expensive and the HIV drug lopinavir is a far cheaper alternative for use in developing countries

‘Lopinavir is obviously safe for people to take as tablets or liquid but our latest findings provide very strong evidence to support a clinical trial using topical application of this drug to treat HPV infections of the cervix.’

Although HPV vaccines are already in use, they suffer from a number of drawbacks, the scientists pointed out.

Vaccines are not effective in women already infected with the virus, and they do not protect against all HPV strains.

In addition they are prohibitively expensive, limiting their use in poorer countries.

HPV-related cervical cancer is one of the most common women's cancers in developing countries, accounting for around 290,000 deaths per year.

A cheap, self-administered treatment which could eliminate early-stage HPV infections would have distinct advantages, say the researchers.

**Metro**

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Words – 283

Sentences - 11

**HIV drug could help stop cervical cancer**

**A simple treatment using a commonly prescribed HIV drug could prevent cervical cancer, scientists say.**

The drug lopinavir kills cells infected by the human papilloma virus while leaving healthy cells mostly unharmed, research suggests.

To be effective as a treatment, the drug would have to be administered in doses ten to 15 times that taken  by HIV patients.

This would mean applying it as a cream or pessary rather than swallowing a tablet, said  the scientists.

Dr Ian Hampson, who led the  research, said: ‘I was speechless when I saw the results. I think this drug or others like it undoubtedly has a future as a treatment that can prevent cervical cancer.’

HPV is the most common cause of cervical cancer, which affects 3,000 women in Britain each year and  accounts for more than 900 deaths. It also triggers mouth and throat cancers in women and men.

Lopinavir belongs to a class of drugs called protease inhibitors which block an enzyme needed by viruses such as HIV and HPV to replicate.

The drug kills HPV-infected cells by re-activating an antiviral system that is suppressed by HPV. Lopinavir may also fight malignant cells as well, say the scientists from the University of Manchester, who worked with colleagues in Canada.

Although HPV vaccines are already in use they do not protect against all HPV strains and are prohibitively  expensive, limiting their use in poorer countries. However, no vaccine can cure those who already have HPV.

HPV-related cervical cancer is one of the most common cancers that  affects women living in developing countries, accounting for 290,000 deaths a year.

A cheap, self-administered treatment which could eliminate early-stage HPV infections would have distinct advantages, say the researchers.

# The Mirror

# Cervical cancer could be prevented by widely used HIV drug

4 May 2011

Words – 168

Sentences -

A WIDELY-used HIV drug could also prevent cervical cancer, scientists say.

They have discovered the medication attacks and kills a virus which puts cells at risk of becoming cancerous.

The drug lopinavir could be used as a cream to combat the human papilloma virus (HPV).

It would be better than a vaccine but needs five years of trials first.

Dr Ian Hampson, of the University of Manchester’s School of Medicine, said: “We have now found lopinavir selectively kills HPV-infected, non-cancerous cells, while leaving healthy cells relatively unaffected.”

The HPV virus makes the cervix cells abnormal and they can become cancerous if not treated.

Women have regular smear tests to pick up signs of abnormal or pre-cancerous cells but almost 3,000 in the UK are diagnosed with cervical cancer every year.

Dr Lynne Hampson, co-author of the study published in the journal Antiviral Therapy and carried out by PhD student Gavin Batman, added: “These results are very exciting.”

HPV causes throat and mouth cancers too in men and women.