

Frequently asked questions: Human Papilloma Virus

Q What is Human Papilloma Virus (HPV)?

A This is a small virus which comprises about 100 types, some of which cause non-genital lesions such as common warts and some of which cause genital lesions, including genital warts. Those that cause genital warts (type 6) are not linked with cervical cancer but around 20 or so are, particularly types 16 and 18, and it is these that we are testing for. The virus replicates within the epithelium or mucosa of the cervix and sheds in exfoliated cells in cytology samples where it can be detected.

Q Why test for HPV?

A It is now very clear that when women have low grade abnormalities, only the HPV positive lesions are likely to have CIN. This means HPV negative women need not be referred to colposcopy and HPV positive women should be referred without the need for repeat cytology follow-up, which delays the final diagnosis.

Q How do we test for HPV?

A HPV is tested for by probing the same cervical sample used in cytology for viral DNA. This means that when a borderline or mild dyskaryosis is reported, the residual material left after the cytology slides have been prepared is used to test for HPV. The remaining cervical cells are processed such that any viral DNA in the cells can be detected.

Q How is HPV acquired?

A It is generally accepted that cervical HPV infection is acquired through sexual contact. The epidemiology of cervical cancer has for many years indicated increased risk in women with multiple partners and early onset of sexual activity. This fits with a sexually transmitted agent being involved in the process of cervical carcinogenesis.

It is common for women to state that their partner is their only ever sexual partner and that their partner states that the woman is his only sexual partner. Theoretically, if two virgins form a faithful sexual relationship there ought not to be the opportunity to acquire HPV. Yet we know that women in some such relationships test HPV positive. When questioned about this, it is impossible to reconcile. HPV infections can persist for many years and it is not possible to be sure about when the infection took place or what is the true "provenance" of the infection. Certainly the commonest HPV types of relevance in cervical cancer are usually symptomless in both partners.

This can be a difficult area but usually a gentle explanation of the facts as we understand them suffices. Do not be tempted to say that if the woman has only had a single sexual partner that this means her acquiring cervical HPV is a sign of infidelity.

See overleaf >>

Q How long does HPV infection last?

A HPV infection of the cervix usually occurs earlier in the sexual lives of women. We know this because HPV positive rates are around 50% in women around the age of 20. In the majority of women the infection clears usually within a year and indeed protective antibodies may develop to prevent future infection by the same type. This does not always occur however, and it is not uncommon to acquire new HPV infections of a different type. In some women, probably around 20 to 30%, the infection persists, and it may do so for years. The longer the infection persists the greater the risk of subsequent abnormality.

Q How can HPV cause cancer?

A HPV contains several genes which can disturb the normal mechanisms that control cell division, which then become uncontrolled. It is thought that HPV alone may not be sufficient to cause cancer and that other factors such as smoking may play a part.

Q Can HPV infection be treated?

A There is no currently effective treatment for HPV infection, but as stated the immune system clears most infections.

Q What role will HPV vaccines have?

A The two vaccines which have been developed by international pharmaceutical companies have been reported to be very effective at preventing infection with the two most common virus types which cause cervical cancer. But these types are only responsible for about 75% of cases. The government has announced the introduction of an HPV immunisation programme to routinely vaccinate girls aged 12 to 13 years from September 2008. There will also be a two year catch up campaign from autumn 2009 for girls up to 18 years. Vaccines are ineffective in women who are already infected, so screening will still be needed in the future.