HPV triage of borderline and mild dyskaryosis and HPV test of cure

This factsheet is designed to inform sample takers and help them to counsel women who are having an HPV test as part of the NHS Cervical Screening Programme.

It is important to note that 95% of screened women will not require an HPV test.

What is Human Papilloma Virus (HPV)?

There are around 100 subtypes of HPV. Most do not cause significant disease in humans. However, some subtypes (most notably subtypes 16 and 18) have been confirmed as agents causing cervical cancer. Unlike subtypes 6 and 11 (which cause genital warts) these ‘high-risk’ types do not produce visible symptoms.

Almost all cervical cancers contain HPV DNA. Looking at cases of CIN, we find that the higher the grade of CIN the more often high-risk HPV infection is found. This suggests that women showing no signs of infection with high-risk HPV are extremely unlikely to develop cervical cancer in the short to medium term. Even if a woman does have abnormal cytology, it is unlikely to reflect CIN2 or 3; in most cases it will be a result of low-grade abnormalities that regress without treatment.

Infection with high-risk HPV is common, especially in women under 35. In most cases the infection is transient. However, for reasons that are not yet known around 20–30% of women do not clear the infection. This group is at most risk of CIN that may eventually develop into cervical cancer.

How do women get the virus?

As far as we know most cases of high-risk HPV infection are sexually transmitted. HPV is easily transmitted during sex between men and women and with same-sex partners.

However, there are two important factors to bear in mind:

- the infection is asymptomatic, so it may have been present and undetected for many years and have nothing to do with a woman’s current relationship
- a partner may have acquired an asymptomatic infection with no visible lesions many years earlier and passed it on unknowingly.

Women can therefore be reassured that a positive test result for high-risk HPV types need not imply infidelity or promiscuity by either partner.

Why are we using HPV testing?

HPV testing is designed to speed up referral to colposcopy, avoid referral for those who do not need it, and allow treated women to proceed to a three year recall period after just six months.

It is well known that the cytology tests of some women with CIN3 show only low-grade abnormalities. Referral to colposcopy is usually made following persistent borderline or mild abnormalities. HPV testing aims to identify which of these women may have significant disease; they can then be referred immediately to colposcopy.
Before the introduction of HPV triage, a single abnormal cytology test result could delay a woman’s return to routine screening for up to two years. However, women known to be high-risk HPV negative are very unlikely to have significant disease. They can thus be reassured and returned immediately to routine recall without the anxiety of repeat screening tests and possible referral to colposcopy.

The follow up of treated women may involve annual cytology screening for 10 years before they return to routine recall. The HPV test of cure can avoid the need for this by helping to assess the risk of residual disease in women with normal, borderline or mild cytology. Women are tested for high-risk HPV six months after their treatment, allowing high-risk HPV negative women with normal, borderline or mild cytology to return to a three year recall period.

How will HPV testing affect women?

**Triage**

Women whose cytology test shows moderate dyskaryosis or worse will not have an HPV test. They will simply be referred to colposcopy, as happens now.

Women whose cytology test result is negative will not have an HPV test. Depending on their previous history, they will be advised either to return to routine recall or to have an early repeat test, as at present.

Women whose cytology test shows borderline change or mild dyskaryosis will have a high-risk HPV test. If it is positive they will be referred to colposcopy. If it is negative they will return to routine three or five year recall, depending on their age.

**Test of cure**

All women who have been treated for CIN will have a cytology test six months after their treatment. If cytology is normal, borderline or mild a high-risk HPV test will be performed. Women who are high-risk HPV negative will return to routine three year recall. Women who are high-risk HPV positive or have moderate or worse cytology will be referred back to colposcopy.

**Does the HPV test affect colposcopy?**

The HPV test focuses on which women will go to colposcopy, which can go back to routine screening, and which can proceed to a three year recall period following treatment. At colposcopy, women's clinical management will depend (as now) on the opinion of the colposcopist who examines the cervix.