

HPV testing could cut cervical cancers by a third, finds study

Zosia Kmiotowicz

BMJ

Testing women for the human papillomavirus (HPV) before traditional cervical cytology could prevent around 600 cases of cervical cancer a year in England, a third of the number of cases diagnosed, a study has found.

To estimate the potential effect of primary HPV testing in England, researchers identified more than 8750 women with cervical cancer and looked at their screening records.

They found that nearly 40% had had a negative cytology test in the six years before their cancer was diagnosed, compared with 70% of women without cervical cancer. They estimated that using an HPV test that was 95% sensitive as the primary screen would have identified 37% of diagnosed cases that had not been picked up by cytology screening in the six years before diagnosis.¹

With 1800 cases of cervical cancer diagnosed in women aged 25-64 years in England every year, the researchers calculated that introducing HPV as well as cytology would prevent 664 cancers each year, of which 136 would have been diagnosed at an advanced stage. Used as the primary screening tool, HPV testing would prevent 587 cancer very year, they estimated.

Peter Sasieni, one of the authors and a Cancer Research UK funded scientist at Queen Mary, University of London, said, "Cervical cancer screening is already hugely effective, but our study shows how much better it could be by swapping to primary HPV testing. Not only would introducing primary HPV testing prevent more cases of cancer, it would also mean women who tested negative wouldn't need to be checked as often."

He told the *BMJ* that the study showed realistic expectations of what HPV testing could achieve—that it wouldn't catch all cases of cervical cancer. Some women will still get cervical

cancer because they don't attend for screening; some develop cancer despite a negative cytological test result; and some whose cancer is diagnosed through cytology still die either because they are not treated or treatment fails.

Currently the UK cervical cancer screening programme tests samples for HPV, but in December last year Public Health England started pilot schemes in which samples taken from the cervix were first tested for HPV and in which only those that tested positive were checked for abnormal cytology.

Hazel Nunn, health information manager at Cancer Research UK, said that the findings from these pilots should provide a clearer indication of how the screening programme for cervical cancer should change.

Sasieni said that over the next 10 years it was likely that the UK would continue to rely on cytology to triage women who tested positive for HPV.

However, as girls who were vaccinated against HPV as teenagers reached screening age, it is likely that they would need only two tests during their lifetime: at ages 30 and 45. Sasieni added, "With the new generation of vaccines that are being developed, women might not need screening for cervical cancer at all." However, it would be important that immunisation records were linked to the screening programme so that it was certain who was protected, he said.

1 Castanon A, Landy R, Sasieni P. How much could primary human papillomavirus testing reduce cervical cancer incidence and morbidity? *J Med Screening* 14 Jun 2013, doi:10.1177/0969141313492313.

Cite this as: *BMJ* 2013;346:f3888

© BMJ Publishing Group Ltd 2013