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NEWS

Cervical screening: study "strongly supports" extending interval to five years

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Screening for high risk human papillomavirus (HPV) infection works well in practice and is more sensitive than cytology testing, a pilot study of more than half a million women has found.

The findings support a switch to HPV screening across England and provide reassurance that screening intervals could be safely extended to at least five years, without increasing the risk of potentially life threatening disease, say the researchers in *The BMJ*.[1]

At present, 2500 cases of cervical cancer are diagnosed each year in England, a quarter after a "normal" smear test result.

Clinical trials show that high risk HPV screening leads to earlier detection of cervical intraepithelial neoplasia (CIN) than liquid based cytology testing, so NHS England and Public Health England are working towards a national roll-out of HPV screening by the end of 2019. To ensure that these trial results would work in the "real world" a large pilot study of routine HPV and liquid based cytology was carried out in six NHS laboratories across England.

A team of UK researchers analysed results from this pilot, which included 578 547 women aged 24-64 years undergoing routine cervical screening (32% high risk HPV; 68% cytology) between May 2013 and December 2014, who were followed up until May 2017.

Women were immediately referred for colposcopy if their high risk HPV test was positive and cervical lesions were found. High risk HPV positive women with no cervical lesions were asked to return in 12 months for another test (early recall); if high risk HPV persisted without abnormal cells, they were recalled again at 24 months. Reassuringly, 80% of women attended these early recall appointments.

After taking account of factors that might have affected the results, the researchers compared the rates of cervical intraepithelial neoplasia picked up by the two screening tests.

They found that high risk HPV screening detected substantially more CIN than liquid based cytology (50% more CIN of grade 2 or higher, 40% more of grade 3 or higher, and 30% more cervical cancer). What's more, a quarter of the CIN of grade 2 or worse was detected after early recall in women with no cervical lesions.

The increased sensitivity of high risk HPV screening is also reflected in the low detection of grade 2 or higher cervical intraepithelial neoplasia among high risk HPV negative women when rescreened at three years, compared with cytology negative women (0.2% vs 0.7%, adjusted odds ratio 0.29, 95% confidence interval 0.22 to 0.38).

Because the study was observational, the researchers cannot rule out the possibility that some of their findings may be due to other confounding factors.

Nevertheless, they said that this large pilot carried out under routine screening conditions had confirmed that high risk HPV screening is practical on a large scale and confers greater sensitivity for both CIN of grade 3 or higher and cervical cancer than liquid based cytology.

In addition, this increased detection in prevalence was followed by a marked reduction in incidence after three years, "lending strong support to an extension of the screening intervals," the researchers concluded.

1 Rebolj M, Rimmer J, Denton K, etal . Primary cervical screening with high risk human papillomavirus testing: observational study. *BMJ* 2019;364:l240. 10.1136/bmj.l240.