A negative HPV test may predict lower cervical cancer risk than a negative Pap

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In the US, cotesting for human papilloma virus (HPV) and Pap testing for cervical cancer every 5 years for women aged 30-65 years is now recommended. However, HPV testing alone may provide better reassurance against cervical cancer than Pap testing alone and similar reassurance to cotesting, according to a study published July 18 in the *Journal of the National Cancer Institute*.

In a comparison of the three strategies, Julia C. Gage, Ph.D., M.P.H., of the Division of Cancer Epidemiology and Genetics, National Cancer Institute, Bethesda, MD, and colleagues analyzed data from the Kaiser Permanente Northern California (KPNC) large integrated health delivery system, which screened women age 30-64 since 2003 with both HPV and Pap testing. Data were available through 2012, and over 1 million women were screened at approximately 3-year intervals, with a mean follow-up time of 4.36 years. For each testing strategy, they estimated the cumulative risk of cervical cancer after a negative test result.

The researchers found that the 3-year cancer risks after a negative HPV-alone test result were lower than those for a Pap-alone negative result. In addition, the 3-year cancer risks after a negative HPV-alone test result were similar to the 5-year cancer risk for a co-test negative result. Gage et al. write "In conclusion, we find that primary HPV testing every 3 years might provide as much, if not more, reassurance against precancer and cancer, compared to primary Pap testing every 3 years and cotesting every 5 years." However, the authors note that a screening program based on only one or the other test alone, rather than a cotesting program

like that at KPNC, might give somewhat different estimates. They urge studies of screening programs in different health-care settings and populations to identify the optimal screening strategy and interval.

In an accompanying editorial, Jane J. Kim, of the Harvard School of Public Health, Department of Health Policy and Management, Center for Health Decision Science, Boston, MA, also cautions that the data reflect management based on cotesting and notes that the HPV test approved for primary screening specifically assays the two highest-risk HPV types (16 and 18) that account for 70% of cervical cancers but pools the assay for the other 12 HPV strains. However, despite these caveats, Dr. Kim concludes that the authors "…provide timely evidence from the United States that HPV primary testing can provide equal or more reassurance against cancer risk than strategies currently recommended by guidelines."

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