Incidence of invasive cervical cancer preceded by negative screening in high-risk Alaska Native women.

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Abstract: BACKGROUND. Alaska Native women experience higher invasive cervical cancer incidence and mortality rates than US whites despite a long-standing cancer screening programme including recommendations for annual Pap smears. METHODS. To determine the frequency and results of cytological screening preceding their diagnoses, a histological and medical record review was completed for 44 of 46 Alaska Native cases of invasive cervical cancer from a defined population. An interval cancer (no prior dysplasia and a negative screening report within 3 years of diagnosis) was determined for 23 women. Mean number of negative reports during the 3- and 5-year intervals before diagnosis was 1.7 and 2.6 respectively. The age-adjusted incidence rate for all cervical cancer was 24.0/100,000 women/year and for interval cancer with single and multiple negative reports during the 3-year interval before diagnosis it was 11.6, and 9.6 respectively. Sensitivity of a Pap smear to demonstrate dysplasia during the year before diagnosis was 51%. CONCLUSIONS. Annual cytological screening of all Alaska Native women with current methods would provide earlier diagnoses for only an additional 15% of cervical cancer cases. Plausible but unproven explanations include rapid progression through precursor stages of neoplasia or random screening errors. Improved or ancillary screening methods appear necessary.

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