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Title **Liquid-Based Techniques for Cervical Cancer Screening: Systematic Review and Cost-Effectiveness Analysis**

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Aim

To assess the effectiveness and cost effectiveness of liquid-based cytology (LBC) versus conventional cytology (CC) for cervical cancer screening in a population of sexually active women ≥15 years of age.

Conclusions and results

Twenty studies of 68 114 participants suggested that LBC was 6% more sensitive and 4% less specific than CC, on average. An LBC-based HPV triage program could cost an additional $6.35 per targeted individual. Compared to annual screening with CC, LBC with HPV triage every 2 years could reduce the disease burden: Screening 3023 women would prevent one cancer-related death (a gain of 0.0002 QALYs) and reduce costs ($59 per person, discounted) while increasing colposcopy rates by 37.5%. The same screen annually leads to a larger reduction in disease burden (0.0007 QALYs), but increased average costs ($23 per person, discounted) and colposcopy referrals (by 63%).

Recommendations

Not applicable.

Methods

A systematic review and Bayesian meta-analysis, economic evaluation, and budget impact analysis were undertaken to compare CC, LBC, and LBC-based human papillomavirus (HPV) triage at 1-, 2-, and 3-year screening intervals.

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