

Title:	Human Papillomavirus Testing (HPV) To Monitor Effectiveness Of Treatment Of High-Grade Intraepithelial Abnormalities Of The Cervix, March 2004
Agency:	Medical Services Advisory Committee (MSAC) Australian Government Department of Health and Ageing GPO Box 9848 Canberra ACT 2601 Australia
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Aim:

To assess the safety, effectiveness and cost-effectiveness of the diagnostic test (Hybrid Capture -II or Polymerase Chain Reaction) to monitor the effectiveness of treatment of high-grade intraepithelial abnormalities of the cervix for the purposes of informing public funding under the Australian Medicare Benefits Schedule.

Conclusions and results:

Safety Although no specific risks were associated with the tests themselves, safety issues regarding the method of collecting cellular material associated with Pap smears are of concern. Furthermore the psychological impact of the test in women with high-grade lesions has not been evaluated.

Effectiveness The post treatment sensitivity of high-risk HPV testing to detect recurrent CIN ranged from 29% to 100%, the specificity from 44% to 100%; and the positive predictive value from 15% to 100%. The negative predictive value of high-risk HPV testing was very high and over 95% in most studies, suggesting that the absence of HPV is associated with a low probability of CIN recurrence. These results should be interpreted with caution as studies varied in their: use of reference standards to verify CIN recurrence and non-recurrence, spectrum of testing for high-risk HPV subtypes, patient groups, post treatment follow-up period and study end points.

Cost-effectiveness Assuming that a management strategy involving HPV testing is no worse, in terms of detection rate of cancerous lesions, than the current strategy for managing women treated for HGEA, results of a cost analysis over 12 years indicate that a management plan that includes HPV testing is cost-saving compared with the current management plan.

Recommendations

MSAC recommended that on the strength of evidence pertaining to the use of high-risk HPV testing at 12 and 24 months following treatment of high-grade intraepithelial abnormalities of the cervix to monitor the effectiveness of treatment, public funding should be supported for this procedure.

Method

MSAC conducted a systematic review of medical literature published from 1998 to 14 August 2003 using the Cochrane Library, Medline, PreMedline, Biological Abstracts, CINAHL, EMBASE, EBM reviews, Cancerlit, and PsycINFO databases to identify the accuracy and precision of the tests and their usefulness in terms of patient outcomes. Internet sources and health technology assessment sites were also searched. This report adopted the criteria for assessment of validity of evidence recommended by the Cochrane Methods Working Group on Systematic Review of Screening and Diagnostic Tests.