Adjunctive colposcopy technologies for assessing suspected cervical abnormalities: systematic reviews and economic evaluation

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Plain English summary

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ervical cancer is the 12th most common cancer among women in the UK. In order to prevent this cancer, women in England and Wales used to receive a cervical smear test, typically every 3–5 years, although this will be replaced with a human papillomavirus (HPV) test in the future. If a smear test suggests that there may be abnormal cells or if HPV infection is detected, a woman will be offered a colposcopy examination. In this test a physician visually examines the cervix using a special device called a colposcope to identify areas that may be affected by changes called cervical intraepithelial neoplasia (CIN). If this is suspected, further tests may be performed or the affected area may be removed.

Dynamic Spectral Imaging System (DySIS)map (DySIS Medical Ltd, Edinburgh, UK) and ZedScan (Zilico Limited, Manchester, UK) are two new methods designed to improve colposcopy. DySISmap provides a colour-coded map to make it easier to identify areas affected by CIN; ZedScan uses a small current applied to the cervix to detect CIN. This report assesses whether or not DySISmap and ZedScan are improvements on standard colposcopy, in terms of the ability to detect CIN and cancer and in reducing costs. This assessment was achieved by a thorough review of all studies examining the potential benefits of the DySISmap and ZedScan technologies, and a new model to assess the economic value of using the technologies.

The review found that both DySISmap and ZedScan successfully detect more women with CIN or cancer, but more women who do not have CIN or cancer will undergo unnecessary further testing or treatment. However, the data reported for ZedScan are limited and further studies are needed to confirm the added value provided by this method. Although both methods are more expensive to use than standard colposcopy, the additional instances of CIN and cancer detected means that both DySISmap and ZedScan are likely to represent good value for money for the NHS.

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