

### What is already known on this topic

Speculum examinations to collect cervical smears are the most commonly performed procedures on women

Women dislike undergoing speculum examinations because of fear of pain, embarrassment, or anxiety about feeling vulnerable during the examination

### What this study adds

Women feel less vulnerable and experience less discomfort when examination is carried out without stirrups

the recent attempts to validate self collection methods for cervical cancer screening to eliminate the need for smears.<sup>15 16</sup> Some studies have shown that beliefs about pain during the procedure can influence screening behaviours for some women.<sup>1 3</sup>

Respect for patients' preferences and ensuring physical comfort are core dimensions of patient centred care, one of the six domains of quality advocated by the Institute of Medicine.<sup>17</sup> Our findings suggest that examination without stirrups represents a more patient centred way to perform speculum examinations.

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## Commentary: Best practice in primary care

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A well done (though necessarily unblinded) trial from the United States shows that women attending for cervical smears feel less vulnerable and have less physical discomfort if a method that doesn't require stirrups is used.<sup>1</sup> The quality of the smears did not differ, and around half the women were from ethnic minority groups. This trial should change practice in the United States, where many women may be unaware that there is an alternative to using stirrups in cervical screening.

By contrast, in the United Kingdom most speculum examinations for routine cervical smears are done in general practice or family planning clinics and stirrups are not used. Use of stirrups is mainly confined to hospital colposcopy and genitourinary clinics, and leg supporter boards are increasingly preferred.

"For women, the vaginal speculum has loomed large, and has long signified a kind of scrutiny and intrusion [that] they have feared."<sup>2</sup> An unpleasant experience of vaginal examination for a first smear may make women extremely reluctant to attend for cervical screening in future. Examination should always be done by a doctor or nurse who is skilled, sympathetic and gentle.<sup>3</sup> All health professionals

should practice the basic principles of respect, privacy, explanation, and consent for intimate examination (box). These principles are increasingly incorporated in medical and nursing education.<sup>4</sup>

In the UK, cervical screening rates have been shown to be better in practices that have a female partner.<sup>5</sup> Improved coverage in deprived areas has also been associated with an increase in the number of

### Suggested guidelines for conducting vaginal examinations in primary care<sup>3</sup>

- Explain the reason for doing a vaginal examination and obtain verbal consent
- Offer to find a chaperone and record this in the notes
- Provide privacy to undress and use drapes to maintain the patient's dignity
- Use a closed room and avoid interruptions during the examination
- During the examination: be gentle, explain what you are doing, be alert to indications of distress, avoid personal comments

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practice nurses, who are often the main providers of cervical screening in general practice. Uptake tends to be lower in practices with more patients who are socially deprived or from ethnic minority groups,<sup>5</sup> and non-responders may be at increased risk of cervical cancer.

There are alternatives for women who find a conventional speculum examination unacceptable. An Australian study of women attending family planning clinics found that 67% (133/198) agreed to insert their own speculum, and of these, 90% would choose to do it again. The main barrier was women feeling unsure how to self insert a speculum.<sup>6</sup> In future, screening might be based on detection of specific human papillomavirus (HPV) subtypes and additional biomarkers for risk of cervical cancer. This might allow the use of self-taken vaginal samples, which could be done either in the clinic or at home. Although response rates might be low, non-responders to cervical screening could be sent postal swabs, and women who are found to have persistent infection with HPV 16 or 18 could be invited to attend for further evaluation.

The paper by Seehusen and colleagues should change clinical practice away from the routine use of stirrups. If cervical screening becomes more user friendly, this could lead to increased coverage. The study also highlights the need for doctors and nurses to respect the patient's integrity when doing vaginal examinations, and shows how trials can be used to assess issues that are important to patients.

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# Whooping cough in school age children with persistent cough: prospective cohort study in primary care

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## Abstract

**Objective** To estimate the proportion of school age children with a persistent cough who have evidence of a recent *Bordetella pertussis* infection.

**Design** Prospective cohort study (October 2001 to March 2005).

**Setting** General practices in Oxfordshire, England.

**Participants** 172 children aged 5-16 years who presented to their general practitioner with a cough lasting 14 days or more who consented to have a blood test.

**Main outcome measures** Serological evidence of a recent *Bordetella pertussis* infection; symptoms at presentation; duration and severity of cough; sleep disturbance (parents and child).

**Results** 64 (37.2%, 95% confidence interval 30.0% to 44.4%) children had serological evidence of a recent *Bordetella pertussis* infection; 55 (85.9%) of these children had been fully immunised. At presentation, children with whooping cough were more likely than others to have whooping (odds ratio 2.85, 95% confidence interval 1.39 to 5.82), vomiting (4.35, 2.04 to 9.25), and sputum production (2.39, 1.14 to 5.02). Children with whooping cough were also more likely to still be coughing two months after the start of their illness (85% v 48%; P = 0.001), continue to have more than five coughing episodes a day (P = 0.049), and cause sleep disturbance for their parents (P = 0.003).

**Conclusions** For school age children presenting to primary care with a cough lasting two weeks or more, a diagnosis of whooping cough should be considered even if the child has been immunised. Making a secure diagnosis of whooping cough may prevent inappropriate investigations and treatment.

## Introduction

School age children with a persistent cough present general practitioners with diagnostic and management dilemmas. A precise diagnosis is often difficult for the doctor, but parents are anxious for an explanation. Children commonly receive empirical treatment for asthma and may be referred for further investigation.<sup>1</sup> These investigations often fail to yield a clinical reason for the cough, which can last for months.

Studies in the United States report a 20% incidence of *Bordetella pertussis* infection among adults with a persistent cough.<sup>2</sup> Despite data showing that neither infection nor immunisation results in lifelong immunity, whooping cough is seldom diagnosed in primary care because of the lack of specificity of clinical symptoms and signs. Whooping cough is perceived as a disease of very young children who have not been immunised and who have classic features such as whoop. Notifications among older children in England and Wales have been low for several years.<sup>3</sup>

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