

reactions were similar to those of many obstetricians on the issue of non-supine labour positions and keeping the birthing bed intact. Their concerns included ensuring sufficient space for the handle of the speculum and whether the speculum could be opened sufficiently for adequate visualisation of the cervix. And in contrast to the evidence of improved clinical outcomes with non-supine obstetric positioning, the study does not definitively answer similar questions for speculum examinations.

For US physicians to change patient positioning during pelvic examinations, additional randomised controlled trials will probably be necessary, both to determine if the quality of cervical specimens is different and to measure doctors' acceptance of this new technique. The trials would also need to provide more data supporting this study's outcomes of decreased patient discomfort and vulnerability in diverse patient populations. In addition, articles describing the examination techniques in detail will be needed—the article is unclear, for example, on how to avoid the speculum handle hitting the table when smaller patients are examined. (The video used by the investigators to train clinicians, available on bmj.com, will go some way towards meeting this.) Finally, this evidence

will need to be published not only in primary care literature but also in gynaecology literature, since the vast majority of doctors learn their speculum exam techniques in medical school during their obstetrics and gynaecology rotations.

Wendy Brooks Barr *assistant professor of family and social medicine*

(wbarr@institute2000.org)

Beth Israel Residency in Urban Family Medicine, Institute for Urban Family Health, Albert Einstein College of Medicine, New York, NY 10003, USA

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Whooping cough in general practice

Prognosis matters more than diagnosis

Research p 174

General practitioners seldom diagnose, or even consider, pertussis in older children who present with ongoing cough as a main symptom. Should this change in the light of new information in a paper by Harnden and colleagues in this week's issue (p 174)?¹ They found that nearly 40% of a cohort of children aged 5-16 years presenting in UK general practice with a cough lasting 14 days or more had serological evidence of recent pertussis infection. This figure is perhaps even double that expected from previous research.²⁻³

The authors conclude that GPs should make a "secure diagnosis of whooping cough" to prevent inappropriate worry and treatment and demand for further tests. GPs are likely to follow this disease focused approach only if they feel that diagnosing whooping cough more often is both feasible and clinically important. The problem is that most of the currently available approaches to laboratory diagnosis either do not perform adequately in general practice or are unacceptably invasive in all but the most troubling cases. And even if a diagnosis is made, there is no evidence that treatment reduces the severity of symptoms, the duration of the illness, or transmission.⁴

The illness model, however, suggests that identifying a precise cause is generally unnecessary for achieving the authors' aims. Indeed, instead of reassurance, making a secure diagnosis of whooping cough might transform the experience of those children at the milder end of the spectrum into something altogether more fearful. Exploring and responding to patients' ideas, fears, and expectations about the likely effect of

time, and the pros and cons of testing and treatment, may be more effective in reducing anxiety and avoiding inappropriate intervention than establishing a cause would be. GPs now know that although acute cough lasts longer than previously thought, almost all preschool children will have recovered without investigations, and largely irrespective of treatment, within one month after consulting.⁵

The information on prognosis from this study will therefore be of most immediate help to clinicians and patients. A clear, evidence based account of what to expect is rare in consultations for respiratory tract infection in children,⁶ and the evidence provided by this study will help set realistic expectations about the duration of cough. The authors found that the children at greatest risk of a prolonged clinical course whooped, vomited, and produced sputum the most often. Carers and children with a combination of symptoms could be targeted for additional communication and monitoring. In the few children who continue to cough after one month, clinicians should consider testing for evidence of pertussis and possibly other infections that commonly cause post-infective cough. Certainly, children with non-resolving cough should neither undergo x ray examination nor be prescribed inhalers without careful further thought.⁷⁻⁸

As pertussis is diagnosed more often among coughing older children, adolescents, and adults,⁹⁻¹⁰ many pressing questions arise. For example, what is the relation between pertussis infection and subsequent asthma? Do the study's findings apply to other countries—and, as none of the subjects received a pre-

school booster dose of the pertussis vaccine, will the findings still apply in the UK now that the preschool booster has been introduced? Do the findings represent a “flow” in a cycle of pertussis incidence that will “ebb” on its own? How robust is the authors’ approach of using a single serum sample for diagnosing recent or active *Bordetella pertussis* infection in general practice? How will new, non-invasive salivary tests perform, and how will they perform relative to clinical prognostic instruments, given the opportunity cost of new tests amid the relentless rise in requests for laboratory tests from general practice? And how will increased testing affect help-seeking behaviour? Consultations for common infections have fallen dramatically in recent years,¹¹ making room for general practices to contribute more effectively to the management of chronic and complex diseases. Poorly targeted testing may encourage people with a cough to consult in the belief that a test is necessary for its optimal management, thus undermining trends towards greater self care.

Perhaps even more importantly, older people with pertussis act as a reservoir for infection among the very young, and it is in the first months of life that the illness

takes its greatest toll; 60-70% of infected babies are admitted to hospital, 12% develop pneumonia, 1% have seizures, and just under 1% die.^{9 12} Is the *Bordetella* organism evolving to escape the protection afforded by existing immunisation schedules? Should the UK follow the US and provide adolescents with a booster, and what effect will this have on pertussis in babies?

Whatever the immediate implications for practice, this study focuses the agenda on pertussis as a major clinical and research issue for general practice. Keeping pertussis well to the back of our minds is no longer an option.

Chris Butler *professor of primary care medicine*
(butlercc@cf.ac.uk)

Nick Francis *MRC fellow, Cardiff University*
School of Medicine, Department of General Practice, Cardiff University, Cardiff CF14 4XN

Geert-Jan Dinant *professor of clinical research in general practice*

Department of General Practice and Care and Public Health Research Institute, Maastricht University, Maastricht, Netherlands

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The evidence base in child protection litigation

Medical expert witnesses need legal protection too, to use the evidence effectively

In this week’s *BMJ* Gornall points out some of the problems associated with the presentation of medical evidence of child abuse in the United Kingdom. He focuses on the omission from the Royal College of Paediatrics and Child Health’s new handbook, *Child Protection Companion*, of research evidence gathered by two controversial paediatricians—David Southall and Sir Roy Meadow.¹

A well developed evidence base exists for child abuse medicine that is suitable for use in litigation for child protection. The published evidence on the abuse and neglect of children begins with a descriptive article by Tardieu (the father of forensic medicine) in 1860.² He pointed out how medical conditions that he had observed in 32 children defined the abusive nature of the events that had occurred. In 1962 Kempe and colleagues reiterated that doctors could and should infer abuse on the basis of certain medical findings of injury. The “battered child syndrome” that they defined is still

a valid concept based on observational research.³ The medical consequences of neglect have been noted since the 1960s, and the extensive medical assessment of sexual abuse cases began in the 1970s.⁴

The American Board of Pediatrics has recently approved the definition of the new subspecialty of child abuse paediatrics. In describing this development, Block and Palusci⁵ note that the knowledge and evidence base on child abuse is similar to that of other accredited medical specialties. PubMed contains more than 16 000 citations for child abuse and a similar number for neglect. Like the medical definitions of breast cancer, AIDS, myocardial infarction, and many other disorders, those of medical conditions resulting from child abuse are based first on observations of patients—initially descriptions of individual cases that are then supplemented by defined case series.

Block and Palusci also point out that the forensic analyses associated with medical work in child abuse

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