

Odds ratios with 95% confidence intervals for outcome variables according to pertussis vaccination status

Outcome variable	Non-vaccinated*	Partially vaccinated†	Fully vaccinated‡	P value
Asthma at age 69-81 months (1024/8240)				
Prevalence in % (No/total)	8.2 (12/146)	20.3 (14/69)	12.4 (998/8025)	
Unadjusted	1.00	2.84 (1.24 to 6.53)	2.05 (0.8 to 5.23)	0.05
Adjusted	1.00	1.59 (0.88 to 2.97)	1.06 (0.58 to 1.95)	>0.1
Periods of wheeze at age 69-81 months (798/8114)				
Prevalence in % (No/total)	9.0 (13/144)	16.2 (11/68)	9.8 (774/7902)	
Unadjusted	1.00	1.95 (0.82 to 4.6)	1.09 (0.62 to 1.94)	0.2
Adjusted	1.00	1.55 (0.55 to 4.37)	0.94 (0.50 to 1.78)	0.2
Doctor diagnosed asthma at age 91 months (1597/7850)				
Prevalence in % (No/total)	15.8 (23/146)	36.2 (21/58)	20.3 (1553/7667)	
Unadjusted	1.00	3.03 (1.51 to 6.09)	1.36 (0.87 to 2.13)	0.005
Adjusted	1.00	1.93 (0.86 to 4.33)	0.98 (0.61 to 1.58)	0.1
Atopy at age 7 years (1324/6463)				
Prevalence in % (No)	17.7 (22/124)	15.4 (6/39)	20.6 (1296/6300)	
Unadjusted	1.00	0.84 (0.32 to 2.26)	1.20 (0.75 to 1.91)	0.6
Adjusted	1.00	1.05 (0.35 to 3.21)	1.18 (0.69 to 2.03)	0.8

*No primary vaccinations, including pertussis.

†Diphtheria and tetanus ≥ 3 doses and no pertussis.

‡Triple (diphtheria, tetanus, and pertussis) vaccine ≥ 3 doses.

69-81 months, $P=0.05$; doctor diagnosed asthma, 91 months, $P=0.005$), it should be noted that, because of small numbers in some groups, the confidence intervals were wide and the results did not support the hypothesis. When we adjusted for potential confounding factors we detected no significant associations ($P=0.1-0.8$).

Comment

These findings confirm and extend our previous observations of the lack of an independent association between pertussis vaccination in infancy with inactivated, whole cell vaccine and the subsequent development of asthma or atopy during later childhood.

Acknowledgments: We thank the mothers and children who took part and the midwives for their cooperation and help in recruitment. The whole ALSPAC study team comprises interviewers, computer technicians, laboratory technicians, clerical workers, research scientists, volunteers, and managers who continue to make the study possible. The ALSPAC study is part of the European Longitudinal Study of Parents and Children initiated by the World Health Organization.

Contributors: MG had the original idea. AM, AS, JH did the analysis. All authors contributed to the interpretation of the data. AM wrote the paper. JH will act as guarantor.

Funding: Core funding for the long term follow up of the cohort came from the Medical Research Council, the Wellcome Trust, the UK Department of Health, the Department of the Environment, DfEE, the National Institutes of Health, and a variety of medical research charities. No specific funding was obtained for this analysis.

Competing interests: None declared.

Ethical approval: Avon Longitudinal Study of Parents and Children Ethics and Law Committee.

- 1 Odent MR, Kimmel T. Pertussis vaccination and asthma: is there a link? *JAMA* 1994;272:592-593.
- 2 Kemp T, Pearce N, Fitzharris P, Crane J, Fergusson D, St George I, Wickens K, Beasley R. Is infant immunization a risk factor for childhood asthma or allergy? *Epidemiology* 1997;8:678-680.
- 3 Nilsson L, Kjellman N-IM, Björkstén B. A randomised controlled trial of the effect of pertussis vaccines on atopic disease. *Arch Pediatr Adolescent Med* 1998;152:734-738.
- 4 Henderson AJ, North K, Griffiths M, Harvey I, Golding J. ALSPAC Study Team. Pertussis vaccination and wheezing illnesses in young children: prospective cohort study. *BMJ* 1999;318:1173-1176.
- 5 Golding J, Pembrey M, Jones R. ALSPAC Study Team. ALSPAC—the Avon longitudinal study of parents and children I. Study methodology. *Pediatr Perinatal Epidemiol* 2001;15:74-87.

(Accepted 8 December 2003)

doi 10.1136/bmj.38045.858889.EB

Corrections and clarifications

British Hypertension Society guidelines for hypertension management 2004 (BHS-IV): summary

An error occurred in the order of the reference list in this Education and Debate article by Bryan Williams et al (13 March, pp 634-40). Reference 8 in the published version (Williams et al) should have been reference 3; and the references published as 3 (Ramsay et al) to 7 (O'Brien et al) in the reference list should then have been renumbered and become references 4 to 8. The two references cited in the footnote to table 1 should be renumbered as 6 (European Society of Hypertension-European Society of Cardiology) and 7 (WHO-International Society of Hypertension); but the other references cited in the text of the article are correct. The pdf (but not the HTML) version on bmj.com has been amended.

Recent developments in secondary prevention and cardiac rehabilitation after acute myocardial infarction
As a result of technology problems, some amendments from the authors did not make it into this clinical review by Hasnain Dalal and colleagues (20 March, pp 693-7). In box 2, we should have added the website address for SEARCH (the study of additional reductions in cholesterol and homocysteine): www.ctsu.ox.ac.uk/projects/search.shtml. And the penultimate sentence of the subsection "Angiotensin converting enzyme inhibitors" should have said that rates of revascularisation (not rates of readmission for heart failure) were reduced in patients who took ramipril.

Obituary: Leonard ("Johnnie") Walker

Our weekly quest to squeeze in as many obituaries as possible led to the last minute deletion of an important sentence from this obituary (*BMJ* 2003;327:1291). We omitted to say "Christianity was an abiding passion and his faith directed his life." We have apologised to Dr Walker's wife.

Is Dad mad, doctor?

I had just put away the pleural aspiration kit and labelled the samples, and had returned to the patient, whose family had now arrived, to check that he was comfortable.

One of the adult children greeted me with the question, "Do you think Dad's mad, doctor?"
"Mad?" I was a little bemused as to where this had come from.

"Yes. He said you are going to send off the fluid from his lungs for psychology."

After a few puzzled moments, the penny dropped: "No, not psychology, cytology."
James S Dawson *senior house officer, Queen's Medical Centre, Nottingham*