

product is effective against house dust mite. It also conforms with all the criteria required by a recent position paper of which he is a coauthor: because it is a heavy powder, thorough vacuuming (part of integrated allergen avoidance) is necessary unlike with other acaricidal products except for liquid nitrogen. In addition, Sergeant's Dust Mite Patrol has the least residual action and safest toxicity profile of all acaricides.

Of all the clinical trials quoted by Colloff *et al*, only six resulted in significant clinical improvement in patients, and three of those used some form of acaricide.²⁻⁴ As Sergeant's Dust Mite Patrol kills mites effectively and the necessary vacuuming will remove allergen by removing the dead bodies and mite faeces, the product must offer the possibility of relief of symptoms for people sensitive to dust mites when used as part of integrated allergen avoidance, which we have always advocated.

L S FOSTER

CoAgra PP Company,
Manby,
Louth,
Lincolnshire LN11 8HH

- Colloff MJ, Ayres J, Carswell F, Howarth PH, Merrett TG, Mitchell EB, *et al*. The control of allergens of dust mites and domestic pets: a position paper. *Clin Exp Allergy* 1992; 22(suppl 2):1-28.
- Dorward AJ, Colloff MJ, Mackay NS, McSharry C, Thomson NC. Effect of house dust mite avoidance measures in adult atopic asthma. *Thorax* 1988;43:98-102.
- Leclercq-Foucart J, de Saint-Georges-Grèdelet D, Geubelle F, Lebrun P. Contrôle de l'acarien des poussières (Dermatophagoides pteronyssinus) par utilisation d'un fongicide. Observations expérimentales. Essai clinique chez l'enfant allergique au Dermatophagoides. *Rev Med Liege* 1985;40:91-9.
- Sooltongos S, Khodaboccus F, Baligadoo S, Leynadier F, Fadel R. Effect of house dust mites (HDM) avoidance measures on symptoms of asthmatic patients in Island of Mauritius (Indian Ocean). *J Allergy Clin Immunol* 1992;89:259. (Abstract.)

Monitoring digoxin treatment

EDITOR,—J K Aronson and M Hardman's article on monitoring treatment with digoxin¹ may cause delay in stopping treatment in cases in which the plasma digoxin concentration is not available rapidly. Newly qualified house physicians tend to send off for measurement of plasma concentrations and wait for the results before stopping or decreasing the dose of digoxin.

If digoxin toxicity is suspected clinically it is much safer to stop the drug at once whether a blood test is done or not. By the next day the patient's nausea, anorexia, or vague ill health is generally much better if digoxin is the culprit. Measurement of the digoxin concentration is often not needed under these circumstances, although it is helpful in more complicated cases, as the article shows.

T P ORMEROD

East Gloucestershire NHS Trust,
Cheltenham General Hospital,
Cheltenham,
Gloucestershire GL53 7AN

- Aronson JK, Hardman M. Digoxin *BMJ* 1992;305:1149-52. (7 November.)

Breast feeding and HIV infection

EDITOR,—In the past few years in Nairobi no single issue related to HIV has caused more debate than whether HIV can be transmitted by breast feeding. Should the possibility be tested scientifically in Kenya? Is it valid to carry out research in communities that are unlikely, as William A M Cutting points out,¹ to be able to respond by changing feeding practices if transmission by breast milk is shown? The operational implications seem of clear benefit only to the affluent communities of the industrialised world, where bottle

feeding can easily be instigated. Or is it more important to find out what the level of risk is and then decide how to respond to the problem with hard data?

There are no easy answers to these complex issues, which are common to much of the clinical research carried out in the developing world; it is just that the issue of breast feeding and transmission of HIV is highly emotive and highlights the dilemmas clearly.

Perhaps we are being too academic about the problem. Even if a high risk of transmission is shown and Kenya then decides to recommend and implement a policy of formula feeding for HIV infected mothers, who will actually take it up? It will be almost impossible for most mothers to conceal the fact that they are bottle, not breast, feeding—which will be tantamount to advertising their HIV status. I do not think that many women will be prepared to do this. As Cutting says, poor women will continue to feed their babies in the most convenient, economic, and familiar way. More importantly, they will continue to breast feed because this maintains the confidentiality and privacy of their own diagnosis.

CHARLES F GILKS

Kenya Medical Research Institute,
PO Box 43640,
Nairobi, Kenya

- Cutting WAM. Breast feeding and HIV infection. *BMJ* 1992; 305:788-9. (3 October.)

Role of breast feeding in paralytic poliomyelitis

EDITOR,—Much evidence shows that breast feeding protects infants from infection, but no data are available about its protective effect against poliomyelitis.^{1,2} Human milk can neutralise poliovirus, and limitation of intestinal shedding of vaccine poliovirus by breast feeding has been shown under certain conditions.^{3,4} We investigated the association between breast feeding and poliomyelitis during the last epidemic in Campania region, Italy, which occurred in 1958, by a population based case-control study.

In 1958 there were 114 000 live births, and 942 infants with paralytic poliomyelitis were reported⁵: of these, 634 were admitted to the Regional Hospital for Infectious Diseases Domenico Cotugno. The incidence was 8.3/1000 and the case-fatality rate 15%. We studied all 103 infants aged 0 to 6 months admitted with a diagnosis of paralytic poliomyelitis between 1 January and 31 December 1958. Ten patients, for whom information on feeding was not available, were excluded. One control for each case was selected by systematic sampling of infants admitted to the same hospital with an acute illness during the same period. The controls were matched to the cases by age (within 15 days) and gender; their main diagnoses were seizures, anaemia, and fever of unknown origin. Information on feeding was not available for 14 patients, who were replaced by the next patients in the list for whom information was available from the records.

Breast feeding was classified as a dichotomous variable: never breast fed and at least partially breast fed. Data on background variables and feeding were collected from the clinical charts by a person blinded to the objectives of the study. Information on breast feeding at admission and parental smoking was not available from the records. Confidence intervals for odds ratios were calculated with Cornfield's method.⁶ The number of infants who had ever been breast fed was 75 among the cases and 88 among the controls ($p < 0.01$). Compared with the infants who had received some human milk, those who had never been breast fed had a higher risk of paralytic

poliomyelitis (odds ratio 4.2, 95% confidence interval 1.4 to 14). When we stratified by social class and the number of other children at home the odds ratio did not show any relevant modification.

Because of lack of information in the records our study has some limitations: breast feeding was available only as a dichotomous variable, and the method of feeding at the time of admission was unknown. This may have decreased the strength of the observed association. Moreover, because the data were obtained 34 years ago we could not check their quality (for example, by interviewing the parents). On the other hand, the epidemic of 1958 was the last that occurred in Italy and our study probably has the interest and the limits of a historical study; epidemiology was a young discipline then, and no other studies of dietary risk factors for poliomyelitis have been published.⁷ Our data suggest a protective role of breast feeding against paralytic poliomyelitis during the first six months of life.

ALFREDO PISACANE	GIACOMO GRILLO
MAURIZIO CAFIERO	CLAUDIO SIMEONE
ANGELO COPPOLA	BENEDETTO SCARPELLINO
	GIANFRANCO MAZZARELLA

Department of Paediatrics,
2nd Faculty of Medicine and Surgery,
University of Naples,
80131 Naples, Italy

- Cunningham AS, Jelliffe DB, Jelliffe EFP. Breast-feeding and health in the 1980s: a global epidemiologic review. *J Pediatr* 1991;118:659-66.
- Hanson LA, Carlsson B, Jalil F, *et al*. Antiviral and antibacterial factors in human milk. In: Hanson LA, ed. *Biology of human milk*. New York: Vevey Raven Press, 1988:141-57. (Nestlé Nutrition Workshop Series.)
- Warren RJ, Lepow ML, Bartsch GE, Robbins FC. The relationship of maternal antibody, breast-feeding, and age to the susceptibility of newborn infants to infection with attenuated polioviruses. *Pediatrics* 1964;34:4-13.
- Plotkin SA, Katz M, Brown RE, Pagano JS. Oral poliovirus vaccination in newborn African infants: the inhibitory effect of breast-feeding. *Am J Dis Child* 1966;111:27-30.
- Comune di Napoli. *Bollettino di statistica*. Naples: Comune di Napoli, 1959.
- Breslow NE, Day NE. *Statistical methods in cancer research*. Vol 1. *The analysis of case-control studies*. Lyons: International Agency for Research on Cancer, 1980.

Nedocromil sodium may substitute for steroids in asthma

EDITOR,—J R Hughes and colleagues report a case in which a moderate dosage of inhaled beclomethasone—presumably 500 µg twice daily, not 500 mg as published—caused severe acne in a man aged 77.¹ They were unable to control the asthma without steroid treatment but fail to say whether other inhaled anti-inflammatory treatment had been used.

In a recent study I and colleagues looked at the steroid sparing effect of nedocromil sodium in moderate to severe asthma and found that it was effective in replacing a mean of 330 µg of inhaled steroids yet allowing optimal control of asthma.² That figure hides the fact that 65% of those patients taking high doses (> 600 µg, mean 1100 µg) were able to halve their dosage and 16% to maintain optimal control of asthma on a quarter of the original dosage. High doses of inhaled steroids are extremely valuable in controlling chronic asthma and may have contributed to the fall in deaths from asthma in New Zealand,³ but systemic side effects may occur; if they do, nedocromil sodium may well be useful.

I have recently seen three patients (two men and one woman) who developed skin thinning and purpura while taking 2000 µg of inhaled steroids. The woman developed bilateral rupture of the Achilles tendon, which was then complicated by pulmonary embolus. These patients were given nedocromil sodium, which substituted completely for the steroids with resolution of the skin changes and continuing optimal control of the asthma.