	All respondents						
	1989		1994		Paired comparison between 1989 and 1994		
	No	% (95% Confidence intervals)	No	% (95% Confidence intervals)	No of pairs	Median change (interquartile range)* P†	
Nebuliser in practice	198	91.4 (87.5 to 95.3)	189	98.4 (96.6 to 100.2)	146	0 (0 to 1)	0.03
Takes meter on house calls	198	31.8 (25.3 to 38.3)	191	34.6 (27.8 to 41.4)	148	0 (0 to 2)	0.9

*Positive values indicate increase. †Signed rank statistic.

In Evans and colleagues' study 44% of the practitioners either carried a nebuliser or said that one was available in their surgery. The difference in proportions of practices with a nebuliser is 54% (95% confidence interval 45% to 62%) between their study and ours. Similarly, 54% of the practitioners in Evans and colleagues' study carried a peak flow meter and the difference in proportions is 19% (9% to 29%). The differences in the proportions are therefore significant, with more practices having nebulisers yet fewer practitioners usually taking meters on house calls in Northern Ireland. Although this may reflect the different methods and emphases of the two surveys, it suggests that important inter-regional differences in asthma care by general practitioners may exist. This has important implications for research into asthma care by general practitioners because we cannot assume that care in one geographical region is representative; any attempt to draw generalisable conclusions will require a national sample.

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The study in 1989 was conducted while R K McKinley held a research fellowship from the Department of Health and Social Security (Northern Ireland) in the department of general practice at the Queen's University of Belfast, and the study in 1994 was financed by a grant from the National Asthma Campaign.

Chickenpox in the tropics

EDITOR,—In their editorial on immunisation against chickenpox Lainie Friedman Ross and John D Lantos fail to recognise that chickenpox is more severe in the tropics than in temperate climes.¹ The reason for this lies in the differences in the age specific incidence of chickenpox between the regions.

In Singapore the peak incidence of chickenpox occurs in adolescence and young adulthood² and is associated with low herd immunity to chickenpox in the young adult population.³ In recent times this trend has also been observed in populations living in temperate regions.^{4,5} Although chickenpox is benign in childhood, in adults it is associated with more severe disease. In pregnant women it is also associated with the risk of chickenpox in the unborn fetus and newborn infant. The social costs of the disease would also be expected to be higher than those estimated for populations in which chickenpox occurs mainly in childhood. It is

therefore erroneous to assume that chickenpox is benign in all populations.

Since vaccination against chickenpox is most efficacious in childhood, a universal immunisation programme should be targeted at young children. The epidemiology of chickenpox and its age specific incidence should be taken into consideration when the issue of mass chickenpox in a particular population is addressed. In this regard, universal immunisation of populations living in the tropics may be justified.

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Differences in progression of HIV infection between men and women

EDITOR,—Alessandro Cozzi Lepri and colleagues report little difference in progression of HIV infection between men and women in the Italian seroconversion study.¹ We have examined this issue in the Swiss HIV cohort study, one of the largest continuing studies of a seroprevalent cohort (a cohort of people with HIV infection in whom the date of seroconversion is not known). The study has enrolled over 6000 participants from all transmission groups, including nearly 2000 women.² In the Swiss survey there was no evidence for differences between the sexes in either progression to different degrees of CD4 lymphocytopenia or progression to death when differences in CD4 cell counts at entry were taken into account in the analysis.³

The authors emphasise the importance of incident cohorts (cohorts in which the date of seroconversion is known) for analysis of differences in the progression of HIV infection. The similar results that we obtained from a seroprevalent cohort indicate, however, that time since infection may have no independent prognostic importance when CD4 cell counts are considered in the analysis. Indeed, this conclusion was reached in analyses of several incident cohorts, including the Italian seroconversion study.^{4,5} Therefore, while incident cohorts are indispensable for answering several important questions, seroprevalent cohorts may offer advantages in other situations. One advantage is the generally larger sample size, and therefore greater statistical

power; this is needed to detect or exclude smaller differences in the progression of disease. For example, the study by Cozzi Lepri and colleagues, based on 854 patients and 42 deaths, could not exclude the possibility of a 79% increase in mortality from AIDS among women compared with men. Conversely, an analysis of the Swiss HIV cohort study based on 2871 patients and 761 deaths showed that such substantial differences can be excluded with confidence.³

The only difference between the sexes found by Cozzi Lepri and colleagues related to AIDS defining cytomegalovirus infection. The authors conclude, on the basis of four cases among women and none among men ($P=0.01$), that this infection may be a more common AIDS defining event among women. We have examined this supposition in the Swiss study by analysing the incidence of disseminated cytomegalovirus infection in participants who were infected either by injecting drugs or heterosexually and who were free of AIDS at registration. Both univariate and multivariate analyses indicate that there is no significant difference between women and men in the occurrence of disseminated cytomegalovirus infection over a mean follow up of three years—if anything, there was a trend in the opposite direction (table). This analysis thus fails to confirm the results of Cozzi Lepri and colleagues. Because of the large number of AIDS-defining conditions tested, their finding may be a false positive result due to a type 1 error. Indeed, applying a Bonferroni-type correction renders their P value non-significant.

In conclusion, the examples presented here show how analyses of incident and seroprevalent cohorts can sensibly complement each other.

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Heart muscle disease related to HIV infection

EDITOR,—We agree with Peter F Currie and colleagues that the aetiology of heart muscle disease in HIV infection is unknown.¹ Given that most HIV infection occurs in the developing world, conditions such as rheumatic heart disease may contribute to cardiac complications in HIV infection even though a significant interaction has not yet been noted.² We report a case of rheumatic heart disease characterised by atypical clinical and laboratory features in a man positive for HIV.

A 28 year old African immigrant presented with

a history of a sore throat, fever, and malaise. He had had two recent episodes of a sore throat treated with antibiotics. Examination showed oral candidiasis, enlarged asymmetrical cervical and axillary lymph nodes, a soft systolic murmur, and hepatosplenomegaly. Laboratory investigations showed anaemia (haemoglobin concentration 71 g/l), a platelet count of $128 \times 10^9/l$, a prolonged international normalised ratio, hypoalbuminaemia, and renal failure. The result of an HIV antibody test was positive. The CD4 cell count was $100 \times 10^9/l$. Throat swabs for bacterial pathogens yielded negative results, and serial antistreptolysin O titres were not raised. An electrocardiogram was normal and echocardiography showed a dilated left ventricle. Staining of cerebrospinal fluid for acid fast bacilli yielded a positive result, and empirical antituberculous treatment was started. He initially responded, with appreciable improvement in clinical, haematological, and biochemical variables.

Over the next five months he was admitted on three occasions with fever, arthralgia, progressive dyspnoea, and hypersplenism. On his final admission he had clinical signs of congestive cardiac failure, with cardiomegaly and pulmonary oedema evident on chest radiography. Repeat echocardiography showed a dilated hypokinetic left ventricle with a normal mitral valve. Despite conventional treatment for heart failure he developed progressive biventricular failure and died. At postmortem examination the gross findings included pronounced left ventricular dilatation, a normal mitral valve, pulmonary oedema, enlarged peripheral and retroperitoneal lymph nodes, and hepatosplenomegaly. Cardiac sections showed Aschoff's bodies in the myocardium and subendocardium.

This patient died of left ventricular failure secondary to rheumatic myocarditis. Patients with HIV infection are often unable to mount an appropriate serological response.³ The absence of appreciable valve abnormalities agrees with a previous report of rheumatic heart disease in HIV infection.² Rheumatic heart disease should be considered in HIV positive patients from endemic areas who have evidence of heart disease. Clinical and laboratory features may be modified by immunodeficiency associated with HIV.

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Supplementation with folic acid

EDITOR,—In 1992 the Department of Health recommended that all women should take folic acid supplements around the time of conception to reduce the incidence of neural tube defects.¹ We undertook a survey of antenatal patients and those trying to conceive who attended our surgery in May and June 1994 to determine whether this advice was being followed. Of the 109 pregnant women surveyed, only 20 had taken supplements in accordance with the recommendations. In a further five cases the pregnancies were unplanned;

thus the women could not have followed the recommendations fully, but they had started supplementation as soon as they thought that they were pregnant.

Women who had stayed on in education beyond age 16 were more likely to have taken supplements than those who had not stayed on (15/41 v 10/68, $P < 0.02$). Women who conceived in 1994 were more likely to have taken supplements than those who conceived in 1993, though the difference was not significant (15/48 v 10/61, $P < 0.5$). Eight women were identified who were trying to conceive. Six of them were not taking supplementation, of whom three were receiving treatment for infertility. The women surveyed were asked whether they had heard of the recommendations about folic acid. Seventy two were aware of them, and 44 of the 72 had learnt about supplementation from sources within our practice.

We found that 18% of the women had followed the department's advice; this figure is higher than that in three studies in hospital antenatal clinics in 1983, in which only 2.4% (15/613), 3% (14/507), and 5% (20/411) had done so.^{2,4} We are disappointed with the low take up by our patients but believe that it would have been even lower but for a poster campaign we ran.

If all cereals and breads were fortified with adequate amounts of folic acid this would obviate the need to take tablets and solve the problem in the case of unplanned pregnancies. At the moment Britain's largest suppliers of cereals fortify their products with either 50 or 100 µg of folic acid per serving (an eighth or a quarter of the recommended level), but other manufacturers have much lower amounts in their cereals (personal communications). Fortification of bread also varies. We believe that the Department of Health should start a new campaign directed at both health care workers and the public to promote supplementation with folic acid. If this proves to be ineffective, fortification of cereals and bread should be made compulsory.

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Antibiotics carried in general practitioners' emergency bags

EDITOR,—S W S Menzies' highlights an important result in our survey that we were unable to elaborate because of restriction of space²; half of the general practitioners (1329 (50.4%)) still carried co-trimoxazole, and 694 (26.3%) carried ciprofloxacin. There are currently few indications for the first line use of co-trimoxazole (treatment and prophylaxis of *Pneumocystis carinii* pneumonia being one); even more disturbing is the increase in ciprofloxacin, which must have even fewer roles in the community.

We recommend that, in addition to parenteral benzylpenicillin, the following oral antibiotics should be kept in the emergency bag: amoxycillin for respiratory infections, trimethoprim for urinary tract infections, flucloxacillin for cellulitis

and acute skin infections, and erythromycin succinate for people with sensitivity to penicillin and for suspected atypical pneumonia. Cephalixin or co-amoxiclav might be carried for use as a second line drug for urinary tract infection, particularly in older people in nursing homes.

The antibiotics carried would obviously depend on patterns of resistance in the area where the general practitioner works. Family health services authorities or even the Royal College of General Practitioners should consider whether a central and national policy on emergency drugs carried by general practitioners might improve practice.

We did ask about chloramphenicol in our questionnaire (general practitioners were asked to tick whether the drugs that they carried were oral, parenteral, or topical), and none carried parenteral chloramphenicol. We accept that chloramphenicol can be used as an alternative in cases of known allergy to penicillin, as noted by Annette Wood and Sarah O'Brien¹ and Vivien Hollyoak and Alice Gunn,¹ particularly in the primary care setting; we recommend, however, as most authorities in Europe and North America do, a third generation cephalosporin such as cefotaxime or ceftriaxone.³ Third generation cephalosporins have the advantages of high activity against all common major meningeal pathogens except *Listeria monocytogenes*; a lack of resistance currently; excellent penetration into the cerebrospinal fluid; and ease of use, being single agents that can be given three times daily (cefotaxime) or once or twice daily (ceftriaxone).

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Units of measurement of central venous pressure

EDITOR,—While reading the Grand Round on nocardia pericarditis I was stopped in mid-sentence by the use of kilopascals as units of central venous pressure.¹ Central venous pressure is measured in a mixture of units according to circumstance. Thus when it is estimated at the bedside as centimetres above the clavicle the unit of measure is centimetres of blood; when a simple manometer is used the unit is centimetres of water or, more accurately, centimetres of isotonic saline solution; and when a pressure transducer is used the unit is millimetres of mercury. The conversion is 1 cm blood = 1 cm H₂O ≈ 1 cm isotonic saline ≈ 0.74 mm Hg. Most clinicians use these different units in an (incorrect) interchangeable mish-mash. This, however, seldom matters as the differences are modest compared with variations in central venous pressure among patients. Furthermore, especially in an intensive care environment, central venous pressure is most commonly used as a component of sequential evaluations of haemodynamic status, when what matters most is the trend rather than the absolute value.

Kilopascals are the SI unit of pressure, but it is