temporarily sensitive to penicillin may not have been sensitive at any time.

The number of patients with defects of immunity has increased considerably, and they are often exposed to serious infections. Patients must be protected from anaphylactic reactions, but there is also an increasing obligation to avoid the erroneous label of penicillin allergy. Patients who develop suspicious reactions during treatment with penicillin should all be tested for allergy to penicillin at a later date.

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1 Sørensen HT, Kjærulff E. Is type I penicillin allergy over-diagnosed in children? *Scand J Prim Health Care* 1986;4:252-3.

Which patients should undergo laparoscopy?

SIR,—Mr S Patterson-Brown and others (14 May, p 1363) have raised the question of which patients with suspected appendicitis should undergo laparoscopy. We did a retrospective audit and identified a rate of unnecessary appendicectomies of 45% in women of reproductive age compared with 18% in all other patients. We thought that such women would benefit from laparoscopy and studied this in a prospective trial.

Thirteen patients have so far been included, and all of these had a laparoscopy followed by appendicectomy or another procedure if appropriate. Two patients had appendicectomy for appendicitis, three required another surgical procedure, three had a macroscopically normal appendix, and five had alternative disease not requiring surgery (two with pelvic inflammatory disease, two with ruptured follicular cysts, and one with endometriosis of the appendix). The pelvic inflammatory disease was seen clearly at laparoscopy, when pus was seen in the pelvis. In the two cases of ruptured follicular cysts blood was seen in the pouch of Douglas. In none of these four cases was the appendix seen, and ideally we would have inserted a probe into the right iliac fossa through a separate stab incision. This was not done, however, as under the terms of the study we were to proceed to appendicectomy.

All women of reproductive age with suspected appendicitis should have a laparoscopy. If a normal appendix is seen those women with pelvic inflammatory disease or ruptured follicular cysts can be spared a laparotomy. If the appendix is not visualised a probe should be inserted into the right iliac fossa through a separate stab incision. We have now adopted this policy in our continuing study.

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Respiratory illness and home environment

SIR,—In their paper Dr R J W Melia and others (21 May, p 1438) draw attention to the omission from their data of parental smoking habit.

During 1984-5 questions about respiratory illness were included in the preschool (age 4½-5 years) medical examination of all children in the inner city multiethnic health district of central

Manchester. Altogether 1122 questionnaires were administered by clinical medical officers, and parents who did not accompany their children (31.6%) were visited at home by school nurses in order to complete the questionnaire. In only one instance did difficulty with the language prevent completion. The questionnaire included items on parental smoking and divided respondents into three broad ethnic groups originating from the United Kingdom or the Republic of Ireland (69%); the Asian subcontinent, principally Pakistan and the Punjab (12%); and the West Indies (18%).

Overall, 56.6% of all subjects lived in smoking households, which were defined as households in which more than 10 cigarettes a day were smoked by resident adults. Sixty seven per cent of children originating from the United Kingdom or the Republic of Ireland lived in smoking households compared with 35% from the Asian subcontinent and 37% from the West Indies. No significant differences were found among children in the different ethnic groups with regard to their history of recurrent wheezing, nocturnal cough, and coughing or wheezing related to exercise. Children of West Indian origin, however, had a significantly greater incidence of chest colds than children from the other ethnic groups. Children living in smoking households were much more likely to experience coughing or wheezing on physical exercise, although exposure to cigarette smoke did not appear to influence any other respiratory symptom.

Reported respiratory symptoms and household smoking patterns were compared in two schools with dissimilar catchment areas. The first area, close to the city centre, embodies many of the worst features of local authority urban planning after the war and socially disadvantaged people are heavily represented, including the unemployed, single parents, and black immigrants. The second school draws its pupils from a mixed socio-economic area at the opposite edge of the health district and contains a considerable proportion of owner occupied suburban houses. A significantly higher proportion of children attending the first school lived in smoking households and were reported to have recurrent chest colds. There were no other differences between the two groups of children.

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Anticoagulation and stroke

SIR,—Dr J Lodder's and others' study of the value of long term anticoagulation in patients with stroke and non-rheumatic atrial fibrillation (21 May, p1435) confirms the uncertainty shared by many neurologists and other doctors and is in sharp contrast to the certainty of Dr D A Chamberlain (14 May, p 1385).

The evidence that anticoagulants prevent stroke in patients with mitral valve disease is uncertain, and previous clinical trials have been uncontrolled and contained too few patients to draw firm conclusions. It has been estimated that the risk of secondary stroke in patients with non-valvular atrial fibrillation may be as high as 20% in the first year and 5% annually thereafter.¹ Data that anticoagulants or antiplatelet agents affect this prognosis are not available. There are two randomised studies. Baker *et al* studied only 28 patients,² some of whom had rheumatic heart disease, and the Cerebral Embolism Study Group showed no benefit in terms of reduction of stroke in those receiving heparin,³ but the numbers of patients were small.

The European atrial fibrillation trial seeks to

resolve this question and will recruit patients with amaurosis fugax, transient ischaemic attacks, or minor strokes caused by non-valvular atrial fibrillation. Patients will be allocated prospectively to treatment with either immediate anticoagulation, aspirin, or placebo. Over 1200 patients will be recruited in over 80 centres in Europe (20 in the United Kingdom). Doctors are invited to collaborate in the study, and further details are available from the address below or from Dr P Koudstaal, European Atrial Fibrillation Trial, Neurological Clinical Trial Centre, PO Box 193, 3500 AD Utrecht, The Netherlands.

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- 1 Sherman DG, Hart RG, Easton JD. The secondary prevention of stroke in patients with atrial fibrillation. *Arch Neurol* 1986;43:68-70.
- 2 Baker RN, Broward JA, Fang HC, *et al*. Anticoagulant therapy in cerebral infarction. Report of a cooperative study. *Neurology* 1962;12:823-9.
- 3 Cerebral Embolism Study Group. Immediate anticoagulation of embolic stroke: a randomised trial. *Stroke* 1983;14:688-76.

Diagnosing Marfan's syndrome

SIR,—In his leading article about Marfan's syndrome Dr Maurice Super (14 May, p 1347) says that "the location of the gene awaits discovery" and that subsequent to this it should be possible to use closely linked fragments of DNA as probes to trace the gene through affected families. The situation is probably more complicated. In contrast to our ignorance of the precise genetic defects in Marfan's syndrome much is known about osteogenesis imperfecta and Ehlers-Danlos syndrome, which resemble Marfan's syndrome in their clinical variability and specificity for connective tissues containing collagen type I.^{1,2}

In osteogenesis imperfecta and Ehlers-Danlos syndrome no single biochemical defect accounts for all phenotypes and the abnormalities are individual to each family. Furthermore, in many cases of osteogenesis imperfecta the defect entails deletions or insertions in the genes for the alpha 1 or alpha 2 chains of type I collagen. Although a variant of Marfan's syndrome has been described with 20 additional amino acids in the alpha 2 chain of the type I collagen molecule³ (the gene for which has been localised to the long arm of chromosome 7⁴), this defect is not universal. It has been suggested, however, that the abnormality in Marfan's syndrome usually affects the cross linking region of the type I collagen molecule, as would have occurred in this example.¹ If the analogy with osteogenesis imperfecta and Ehlers-Danlos syndrome is correct Marfan's syndrome is both clinically and biochemically heterogeneous, and it entails a defect in a connective tissue protein or one of its processing enzymes that must be defined in each affected family. It is improbable that a single probe could be used in all cases of Marfan's syndrome as is apparently the case in adult polycystic kidney disease.

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- 1 Prockop DJ, Kivirikko KI. Heritable diseases of collagen. *N Engl J Med* 1984;311:376-86.
- 2 Prockop DJ. Mutations in collagen genes. Consequences for rare and common diseases. *J Clin Invest* 1985;75:783-7.
- 3 Byers PH, Siegel RC, Peterson KE, *et al*. Marfan syndrome: abnormal alpha 2 chain in type I collagen. *Proc Natl Acad Sci USA* 1981;78:7745-9.
- 4 Junien C, Weil D, Myers JC, *et al*. Assignment of the human pro alpha2(I) collagen structural gene (COL1A2) to chromosome 7 by molecular hybridization. *Am J Hum Genet* 1982;34:381-7.