than the use of unity as a means to better health care.

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Clawback of GPs' health promotion fees

SIR,—Miss Linda Beecham's report that family health services authorities have been told to withdraw payment for opportunistic and aggregated health promotional consultations is particularly dismal news for primary care workers attempting to build effective prevention services in urban deprived areas.¹

Our practice has over the past five years gained some experience of systematic health promotion in urban general practice through the Tower Hamlets' Healthy Eastenders Project. Impelled by the unacceptably high levels of cardiovascular morbidity that persist in the east end, we sought to adapt the work of Fullard *et al* in Oxfordshire² to the inner city. We work with a dedicated and trained full time health promotion nurse backed by a practice nurse specialised in anticipatory care. We adhere to project wide protocols using compatible multiuser software.³ We regard this work as essential if we are to start to reverse the inverse care law and bring high quality health promotion to the people who need it most.⁴

Although conventional health promotion clinics and invitations for check ups by post are important, if health promotion is to work in urban deprived areas doctors and nurses must make use of opportunistic consultations. We know that we have a high consultation rate, and patients who need advice about stopping smoking, obesity, exercise, etc, need to be tackled when they consult, probably about other matters. Appointment times need to be expanded to allow for this and thence remuneration is appropriate. Formal health promotion clinics are needed, but our experience is, not surprisingly, of a high rate of non-attendance.

Although cynical about the new contract's real commitment to planned preventive and proactive care, we were encouraged that our family health services authority has accepted the need for opportunistic consultations as long as they are bona fide, conducted according to protocol, computer audited, and linked to an ongoing practice health promotion scheme. If the Department of Health edict is allowed to stand we will lose a source of income that has helped to mitigate the considerable staff and equipment costs of the programme.

What is worse, far from reversing the inverse care law this policy will accentuate the trend towards two tier primary care divided according to social geography. Better off areas, where the need for advice may be less but where patients are able and motivated to attend clinics, will benefit disproportionately from the health promotion monies available nationally. It is essential that our new team of national negotiators tackle this matter with rather more vigour than their predecessors displayed. If the NHS Management Executive's ruling is allowed to stand schemes such as Healthy Eastenders are in jeopardy.

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Use of illicit drugs before arrest

SIR,—Dr Anthony Maden and colleagues excluded cannabis from their consideration of drug dependence "as it is of minor importance."¹ I suspect that they meant that it is of minor importance in discussing drug dependence, but the title refers to the use of illicit drugs, and the use of cannabis is of considerable clinical importance.

Cannabis is a common cause of paranoid psychoses² as well as of secondary mania³ and is also the most commonly used illegal psychoactive drug (as the authors found) and could be playing a large part in causing crime, both directly and indirectly as psychosis can lead to crime. I do not quarrel with the conclusions of this paper, but I think that it is important not to devalue the serious consequences of cannabis use by referring to it as of "minor clinical importance."

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Drug Points

Pruritus ani, piperazine, and thrombocytopenia

DRS MICHAEL J CORK and NIGEL J COOKE, and Ms ELIZABETH MELLOR (Leeds General Infirmary, Leeds LS1 3EX) write: A 61 year old man presented with a one month history of haemoptysis and epistaxis after self treatment with piperazine. He had developed perianal pruritus and noticed worms in his faeces and had assumed that they were threadworms (*Enterobius vermicularis*) as he had been treated by a doctor for a similar infection with piperazine 15 years previously.

He treated himself with two over the counter preparations, piperazine hydrate and, three weeks later, piperazine phosphate. He took two seven day courses of piperazine hydrate 2.25 g daily starting on 19 September and 4 October 1989. On 28 October he took 4 g of piperazine phosphate and repeated this on 25 November. He had taken no other drugs before the onset of the haemoptysis. Five days later he developed epistaxis and haemoptysis that persisted for one month. He was referred for investigation.

On examination his chest was clear and no worms were visible perianally or by the sellotape test. His chest radiograph and haemoglobin concentration were normal. His platelet count was $26 \times 10^9/l$ four days after the haemoptysis had resolved. He was instructed to avoid piperazine and his platelet count rose over three weeks to $170 \times 10^9/l$.

Thrombocytopenia has not been previously reported as an adverse reaction to piperazine, although hypersensitivity reactions have occurred. Fregert reported on a man with eczema and respiratory symptoms after occupational exposure to piperazine.¹ The man developed similar symptoms when patch tested with piperazine. One case of haemolysis has been reported, but this patient had glucose 6-phosphate dehydrogenase deficiency.²

Cross reactivity between contact allergy to piperazine and to ethylenediamine has been reported in a patient sensitised by using a cream

containing ethylenediamine.³ He developed an exfoliative dermatitis when treated with piperazine for a thread worm infection.¹ Ethylenediamine is used as a stabiliser in creams such as Tri-Adcortyl Otic and generic nystatin creams.⁴ It also cross reacts with many polyamines and structurally similar drugs, such as aminophylline, piperazine, and hydroxyzine. After sensitisation to ethylenediamine by topical application or occupational exposure a patient can develop a life threatening reaction if challenged with a related drug—for example, systemic aminophylline.⁵

The severe thrombocytopenia in our patient after exposure to piperazine was probably the result of sensitisation 15 years previously, and he was advised to avoid not only piperazine but all substances containing or derived from ethylenediamine. The significant underreporting of adverse drug reactions,⁶ the availability of piperazine without a prescription, and its extensive use in the Third World make it difficult to determine the frequency of this adverse reaction. Our case shows the importance of a complete drug history with reference to over the counter preparations and raises the question whether some of these drugs should now be available only by prescription, particularly if they have extensive cross reactions.^{4,7}

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Diarrhoea as a side effect of digoxin

DRS P A ANDREWS and P R WILKINSON (Ashford Hospital, Ashford, Middlesex TE15 5AA) write: Anorexia, nausea, and vomiting are well recognised side effects of treatment with digoxin.¹ We report a case of chronic diarrhoea, which emphasises another association of potential clinical importance.

A 72 year old woman presented with congestive cardiac failure secondary to uncontrolled atrial fibrillation. She was started on frusemide 80 mg, amiloride 10 mg, and digoxin 0.25 mg daily and rapidly improved. The dose of digoxin was increased after seven days to 0.375 mg daily because of poor control of ventricular rate. Three weeks later she developed profuse watery diarrhoea, with bouts five to seven times a day without systemic upset. This persisted for seven weeks and was associated with loss of 8 kg of body weight. Stool cultures and microscopic examination for ova and parasites, tests for thyroid function, abdominal ultrasonography, sigmoidoscopy, and barium enema examination all gave normal results. She was admitted to hospital with a digoxin concentration of 3.7 nmol/l (six hours after the dose, normal range 0.9-2.6 nmol/l) and digoxin was stopped. Her diarrhoea settled without further intervention over the next 72 hours, and three months later she was well and regaining weight.

Although it is mentioned on the manufacturer's data sheet, diarrhoea is not a well recognised side effect of digoxin, even in chronic overdose. The Committee on Safety of Medicines and the manufacturers have received only two similar reports, neither of which were published. We suggest that doctors should be alert to this reaction, particularly in the elderly and those in whom concurrent drugs may increase the likelihood of toxicity.¹

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