Appreciable improvements were achieved only after we had developed and introduced a standardised admissions form. Full results of our 12 months' experience will appear elsewhere.[3]

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1 Gabbay J, McNicol MC, Spiby J, Davies SC, Layton AJ. What did audit achieve? Lessons from preliminary evaluation of a year's medical audit. *BMJ* 1990;**301**:526-9. (15 September.)
2 Royal College of Physicians. *Medical audit—a first report: what, why and how?* London: RCP, 1989.
3 Rai GS, Bielawska C, Sharland DE. Medical audit of case notes in geriatric medicine—one year's experience. *Care of the Elderly* (in press).

"Will the white paper slay the dragon?"

SIR,—Dr Graham M Hunter rightly stresses the importance of training for receptionists,[1] but, as Ms Ann Stewart states, many receptionists are given little or no training.[2]

In 1984 less than 10% of receptionists had received formal training, although the Association of Medical Secretaries, Practice Administrators, and Receptionists has been training administrative staff for 25 years. Most training has been on a full time basis and courses lead to certificates in medical reception, a diploma in medical secretarial studies, and a diploma in practice management. Approximately 3000 students take these courses each year, and members of the association are sought for key positions in medical administrative work. Local short courses are now being provided by Radcliffe Medical Press in cooperation with the association. The secretary of state has stated that "from April 1st 1990 employees are to be suitably qualified and competent and given training." The Joint Committee for the Continuing Education of Practice Administrative Staff oversees all short courses registered with it and issues certificates of attendance for those who complete an approved course. The committee has arranged a national symposium in Birmingham University Postgraduate Centre on 10 November 1990, with the theme "The pace of change." Colleagues who would like further information about the symposium may contact Doris Gilhespy, secretary to the joint committee, at Tavistock House North, London WC1H 9LN, telephone 071 387 6005.

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1 Hunter GM. Will the white paper slay the dragon? *BMJ* 1990;**301**:443. (1 September.)
2 Stewart A. Will the white paper slay the dragon? *BMJ* 1990;**301**:443-4. (1 September.)

Sleep disorders in children

SIR,—The adage if you don't get your sleep you won't grow quoted by Drs M Z Shaheen and W J Windebank[1] may not hold for the population in general.

In a survey of 9913 children aged 5 to 11 undertaken as part of the national study of health and growth the amount of time spent sleeping was assessed by a questionnaire completed by parents.[2] Measurements of height and completed questionnaires were obtained for 5145 children. After adjusting for other variables known to be associated with height there was a weak negative association between the amount of sleep and height. Growth does not seem to be related to total duration of sleep, even though it may be related to quality of sleep.

Parents who use this adage as a means of encouraging their children into bed may have to develop new tactics in future or risk losing credibility.

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1 Shaheen MZ, Windebank WJ. Sleep disorders in children. *BMJ* 1990;**301**:607. (22 September.)
2 Gulliford MC, Price CE, Rona RJ, Chinn S. Sleep habits and height at ages 5 to 11. *Arch Dis Child* 1990;**65**:119-22.

Drug Points

Pseudopolymyalgia rheumatica with dipyridamole

Drs PHILIPPE CHASSAGNE, OTHMANE MEJJAD, CATHERINE NOBLET, OLIVIER GOURMELEN, and NICHOLAS MOORE and Professors XAVIER LE LOËT and PIERRE DESHAYES (Hôpital de Boisguillaume, BP 100, 76233 Boisguillaume Cedex, France) write: Dipyridamole is widely prescribed as an antiplatelet drug. Its side effects are usually mild and related to its vasodilator properties; the only severe side effect recorded to our knowledge is ischaemia related to vascular steal.

A 59 year old man had been treated with fluindione since 1981, when he had had a myocardial infarction. No other treatment was given. On 31 May 1989, after minor accidental foot trauma, his treatment was reviewed and the anticoagulant was stopped. Dipyridamole (225 mg daily) was introduced on 19 June. Three days later he started complaining of severe muscular pain in all four limbs, especially in the shoulders and the pelvic girdle. These aches were permanent, causing insomnia, and were accompanied by morning stiffness lasting three hours. He reported later that the muscle pain increased sharply 20 minutes after each ingestion of the drug and thereafter slowly decreased, without totally disappearing, until the next dose. The initial brand of dipyridamole (Persantin) was changed for another brand (Cleridium) with different excipients two days after the pain started, without any influence on the symptoms. Aspirin (1·5 g daily) had no effect on the pain.

The pain steadily worsened, and he was admitted to the hospital on 28 June. He had no dyspnoea, fever, or eye or skin manifestations but complained of mild headache. The muscles seemed normal and were not painful on palpation, but active mobilisation of his arms and legs caused intense pain. The results of neurological and physical examinations were normal, as were the results of laboratory tests, including blood cell counts; serum creatinine concentration; creatine phosphokinase, aldolase, and lactate dehydrogenase activities; and triiodothyronine and thyroxine concentrations. His erythrocyte sedimentation rate was 34 mm in the first hour. Electromyograms of all his limbs appeared normal.

This patient had a condition closely resembling acute pseudopolymyalgia rheumatica. Though the doctors had not initially related the disorder to dipyridamole, the patient suspected this and stopped the drug on the day of the admission: the pain completely disappeared within 48 hours, and subsequently he had no more pain. Retrospectively his symptoms seem clearly related to dipyridamole: they had never occurred before and did not recur after he stopped the drug. Though we did not try a reintroduction, the patient had noted a worsening of the symptoms each time he took the drug and had established a relation between the drug and the symptoms. He took no other drug, and there was no other obvious cause for his condition, but the search for causes was stopped when the symptoms receded. Another cause seems unlikely given the completely trouble free follow up. No other case has been reported to the manufacturer or to the French national system, though a few cases seem to have been reported to the Committee on Safety of Medicines. The mechanism by which the drug caused the effect is unclear: a steal effect could not explain such diffuse pain.

Diabetes mellitus in a patient with AIDS after treatment with pentamidine aerosol

Drs A FISCH, T PRAZUCK, J E MALKIN, O PATEY, and C LAFAIX (University Hospital, Villeneuve St George, 94190 France) and Dr H LEBLANC (St Louis University Hospital, Paris) write: Systemic administration of pentamidine is known to cause glycoregulation disorders. Such disorders have not been reported in patients treated with inhaled pentamidine, although one patient with hypoglycaemia that could not be attributed to other causes[1] and two possible cases of pancreatitis[2] have been reported.

A 56 year old man became infected with HIV in 1984 after multiple transfusions for a coronary graft bypass. Four years later antibodies to HIV were detected.

He was admitted to hospital with *Pneumocystis carinii* pneumonia and was treated with cotrimoxazole for three months and then by one aerosol inhalation a month of 300 mg of pentamidine isethionate. Eight days after the third inhalation he presented with asthenia, polyuria, and polydipsia. Fifteen days later examinations showed that he had lost 3 kg in a month and had a fasting glycaemia of 25·3 mmol/l. No prior sign of hypoglycaemia was noted. This episode of diabetes was brought under control after three days with 35 units of regular insulin. Ten days later it was possible to stop treatment with insulin. Three months later normal fasting glycaemia was maintained by diet alone.

No complications related to HIV infection or causes or factors conducive to diabetes were found. He had no family history of diabetes, his weight had been normal (69 kg, height 179 cm) and stable throughout life, he did not overindulge in alcohol, and he did not take any drug known to cause diabetes; antibodies to islets of Langerhans were not detected. When diabetes developed pentamidine aerosol was replaced with dapsone. On the day that his diabetes was detected (25 days after the last aerosol inhalation) no pentamidine was detected in the blood.

The pancreatic toxicity of pentamidine is generally considered to be dose dependent direct toxicity. If this was the case in our patient he must have been particularly sensitive to pentamidine. Other explanations are that the pulmonary absorption of pentamidine might be abnormally high in some patients, contrary to that indicated by pharmacokinetic studies,[3] or that a toxic mechanism that is not dose dependent may exist.

1 Karboski JA, Godley PJ. Inhaled pentamidine and hypoglycemia. *Ann Intern Med* 1988;**108**:490.
2 Herer B, Chinet T, Labrune S, Collignon MA, Chretien J, Huchon G. Pancreatitis associated with pentamidine by aerosol. *BMJ* 1989;**298**:605.
3 Conte JE, Holden JA. Concentrations of aerosolized pentamidine in bronchoalveolar lavage, systemic absorption and extraction. *Antimicrob Agents Chemother* 1988;**32**:1490-3.

Correction

Bedding and sleeping position in the sudden infant death syndrome

An authors' error occurred in this letter by Drs Adèle C Engleberts and Guus A de Jonge (8 September, p 493). References 2 and 3 are in the reverse order. Thus the study of arterial oxygen concentration should be attributed to Levine and McKenzie and not to the authors of the letter.