a considerable clinical and economic burden, as we indicated in our editorial.

CYRUS COOPER

MRC Environmental Epidemiology Unit, Southampton General Hospital, Southampton SO9 4XY

L IOSEPH MELTON III

Section of Clinical Epidemiology, Mayo Clinic, MN 55905

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- 3 Ettinger B, Black DM, Nevitt MC, Rundle AC, Cauley JA, Cummings SR, et al. Contribution of vertebral deformities to chronic back pain and disability. J Bone Miner Res 1992;7:
- 4 Cooper C, Shah S, Hand DJ, Adams J, Compston J, Davie M, et al. Screening for vertebral osteoporosis using individual risk factors. Osteoporosis Int 1991;2:48-53.

Adrenaline in allergic emergencies

EDITOR, - We disagree strongly with Gregory Y H Lip and Malcolm J Metcalfe's view that the correct route for administering adrenaline during allergic emergencies is by an intramuscular injection.1 The intravenous (rather than intramuscular or subcutaneous) route is best under these circumstances as it is safe and effective and a therapeutic response is both rapid and assured. During hypotension the absorption of drugs given intramuscularly and subcutaneously may be unreliable; furthermore, uptake of adrenaline given intramuscularly may be delayed. Venous access is usually not difficult to secure as vasodilatation is a major pathophysiological characteristic of anaphylaxis. Lip and Metcalfe state that absorption after intramuscular injection is "rapid and usually adequate if reasonable circulation is present." This seems highly questionable, considering that hypoperfusion is characteristic of anaphylxis.

Concerns for the potential dangers of intravenous adrenaline are largely misfounded; like any drug, adrenaline can be dangerous if given incorrectly. If given in a controlled titrated manner at a dose of 5-8 µg/kg in a dilution of 1:10 000, however, it is safely and rapidly delivered to its site of intended action. Of course, by the nature of its sympathomimetic action adrenaline may cause arrhythmias, but in anaphylaxis so might hypoxaemia, hypotension, and the effects of mast cell mediators. Anecdotal reports often cited by those who claim that intravenous adrenaline is hazardous either do not comment on the speed of injection of the dose given or fail to exclude other causes of the arrhythmias witnessed.3 We conclude that when adrenaline is required in an anaphylactic emergency it should be given in the correct dose intravenously.

> G B SMITH **BL TAYLOR**

Intensive Therapy Services, Queen Alexandra Hospital, Portsmouth PO6 3LY

1 Lip GYH, Metcalfe MJ. Adrenaline in allergic emergencies.

- BMJ 1992;304:1443. (30 May.)

 Roberts-Thompson P, Heddle R, Kupa A. Adrenaline and anaphylaxis. Med J Aust 1985;142:708.
- 3 Sullivan TJ. Cardiac disorders in penicillin-induced anaphylaxis Association with intravenous epinephrine therapy. JAMA 1982;248:2161-2.

Vaccination and immunisation

EDITOR,—The Health Education Authority seems to be out of step with the World Health Organisation in wishing to discard the term vaccination.1 The World Health Organisation uses

"immunise" to refer to the process of conferring immunity, while "vaccinate" means administering a vaccine. There may be an important difference between the two. The two terms help us to remember that children who are "vaccinated" are not necessarily "immunised." Though this distinction may not be obvious to members of the public, it is valuable for health professionals and should be preserved.

TONY WATERSTON

Community Headquarters Newcastle General Hospital Newcastle upon Tyne NE4 6BE

 Cooke B. Immunisation, not vaccination. BM7 1992;304:1313. (16 May.)

The GMC on performance

EDITOR,-Richard Smith mentions my bill in his editorial on the General Medical Council's proposals for performance assessment.1 I have made it clear that whatever merits these proposals may have-in any case, as Smith points out, they would take some time to implement-I do not believe that they meet the major gap in the existing disciplinary procedure. This gap is greatly to the disadvantage of the profession itself, let alone the public.

Smith states that my bill would "produce a lesser charge than serious professional misconduct.' This is not the case, although critics of my bill have on occasion implied or stated that it is so. The bill itself states that where in the course of an inquiry into a prima facie case of serious professional misconduct the professional conduct committee of the General Medical Council judges that a fully registered person has "behaved in a manner which cannot be regarded as acceptable professional conduct, the Committee may, if they think fit, direct that the registration shall be made conditional in accordance with the foregoing subsections of this section [36].

Thus the preliminary proceedings and the prima facie charge of serious professional misconduct remain, and it would still be open for the professional conduct committee to find that any demonstrable conduct of a practitioner does not amount to serious professional misconduct. At the moment, however, if the committee finds that the misconduct is not acceptable professional conduct, as indeed it did in the case of Alfie Winn, which Smith mentions, it is debarred by law from taking any action other than the variable publicity

Thus the professional conduct committee can find the conduct of a doctor towards patients unacceptable but then go on to accept it in practice since it has no legal remedy. But the one I suggest—that of "conditional registration"—is already provided for and used in the existing act. It is less penal than remedial since it would attempt to meet any deficiency of the practitioner in a way most suited to the practitioner's needs.

This modest change would not only be of direct benefit to the profession but add to its reputation of being capable of effective self regulation, which, alas, is not the case at present.

NIGEL SPEARING

House of Commons London SW1A 0AA

1 Smith R. The GMC on performance. BMJ 1992;304:1257-8. (16 May.)

EDITOR,—I read with interest your editorial on the new General Medical Council machinery for dealing with long term poor performance by doctors.1 I share all your anxieties, but I have a further concern-namely, that this move by the GMC could blur responsibilities and hinder rather than facilitate the taking of effective action. I write as a clinician who is now involved in management of the service. It seems to me that as a profession we have evaded this issue. Many of the aspects of performance the new regulations cover are the legitimate concern of employing authorities and eventually can appropriately be dealt with only by these authorities. By involving itself in this new role the GMC may merely ensure that neither it nor the health service itself effectively deals with this situation.

MARTIN McNICOL

Central Middlesex Hospital NHS Trust, London NW10 7NS

1 Smith R. The GMC on performance. BMJ 1992;304:1257-8. (16 May.)

EDITOR, -Before the General Medical Council starts disciplining doctors for rudeness and incompetence perhaps it might examine a few cases. I suspect that most of the incidents would feature doctors under extreme pressure-from fatigue, overwork, or unreasonable patients. It is the conditions of our work rather than personal deficiencies that produce conflict and poor performance.

As a general practitioner, I believe that our job is becoming untenable. On the one hand the government, family health services authorities, pressure groups, and members of our own profession are queueing up to complain about our standards; on the other hand we are expected to impose order on a system that allows the public free unlimited access to health care at any time of the day or night.

I do not believe that we can combine unlimited access with a consistently high quality service. If the quality of care is low it is because doctors have compromised their standards to ensure that every patient who presents is seen. To raise standards we need more time with fewer patients, which means placing some limitation on access. I can see no other way of resolving this dilemma.

CHRIS NANCOLLAS

Yorkley, Gloucestershire GL15 4TX

Recording HIV status on police computers

EDITOR, - J K Mason's editorial on police practice suggests that information on HIV status is stored on the police national computer with the best of motives. Subsequent letters from A J Lyons,2 A Jeynes,3 and D C Macallan4 correctly point to errors in the accuracy of data and the deleterious impact of holding such data.

Possible uses of this information should be looked at more closely. Mason suggests that records are centrally controlled and have strictly limited objectives - namely, to protect members of the public and police by reducing the risk of infection. This belief seems naive, as shown by recent press reports.

The Evening Standard recently reported: "almost half of a survey sample of prostitutes working the Kings Cross red light area are drug abusers and of these 75% claimed to be HIVpositive, police said today." This story was taken up by local and national papers. A second report with the headline "Met has Mugshots of Hookers with AIDS" quoted chief Inspector Derek Talbot, saying "of the 50 hard core regulars who work the streets around the station we reckon that three out of four have the virus."6

Subsequent discussions with the police at the relevant vice unit revealed that the reports were not based on a specific survey but on the collation of existing police information, including records held on the police computer. This information is there-