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General practitioner teaching in the community

Sir,

As new GP tutors teaching undergraduate students formally for the first time this year, we were very interested to read Gray and Fine's paper (October *Journal*)¹ on general practitioners' (GPs') views of some of the rewards and problems of undergraduate teaching. It is clear from their paper that the majority of GPs surveyed had some teaching experience, but it was not clear what level of training or support, if any, they had received with this.

We were intrigued about some of the views of the GPs on the need for training and support for undergraduate GP tutors. What surprised us was that, when asked what support they would like from medical schools, such a small proportion wanted membership of a tutors' group (48/301 or 15.9%). In our experience, participation in an undergraduate GP tutors' group run by the medical school has been one of the most rewarding and helpful parts of out professional development as new teachers.

It is inevitable that tutors will encounter difficult problems at some point when teaching groups of medical students who, for example, may feel 'entitled' to do the minimum work necessary to pass their exams. This could contribute to low morale and the perceived lack of self-confidence that has been noted among GP tutors.² In our view, the ability to share these problems, constructively create solutions with our colleagues, and benefit from their experiences in a safe, supportive environment has been vital.

The tutors' group has also made us more aware of different teaching styles and how educational theory can work in practice. We feel that these factors have helped to increase our confidence and develop our teaching skills. In addition, GP tutors' groups can provide an opportunity to assist in developing the curriculum by providing feedback of their own impressions as well as the student evaluations.

It is also interesting that, in Gray and Fine's paper, as much as 56% of GPs with no undergraduate teaching experience were unaware of the support available from medical schools. We feel that ongoing support is critical for current and potential undergraduate GP tutors. Medical schools should ensure that tutors have both an awareness of and access to this support.

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Prostate specific antigen in urinary tract infection

Sir

Prostate specific antigen (PSA) has a reported sensitivity for prostatic adenocarcinoma of up to 80%. However, it lacks specificity. The reported positive predicted value of an elevated PSA (Hybritech Tandem-R PSA radioimmunoassay >4 ng/ml) for prostatic carcinoma in screening studies is only 28–33%. This is largely because 21–53% of men with benign prostatic enlargement (BPE) will have an elevated PSA above 4 ng/ml. 4.5 Prostatitis, including subclinical histologically proven

inflammation, may lead to an elevated PSA.^{6,7} The physiological variation in serum PSA levels can be up to 30%.⁸ Nevertheless, serum PSA is a useful tool in the detection and staging of organ-confined prostate cancer^{1,2} and the monitoring of disease progression and response to hormonal manipulation.

We present a series of 31 men (mean age = 67 years; range = 48-82 years) who were referred to the urology unit over a 17-month period with a raised PSA, BPE on digital rectal examination, and a documented urinary tract infection (UTI). Five men were asymptomatic. The mean PSA (Hybritech Tandem-R PSA radioimmunoassay) at presentation was 24 ng/ml, with a range of 5.4-100 ng/ml (normal range = 0-4 ng/ml).

A clinically significant UTI (>10⁵ organisms per ml) was documented in all 31 patients. Following eradication of the UTI, the PSA returned to normal (mean = 2.7 ng/ml; range = 0.3–3.9 ng/ml) in 81% of cases (25) within 17 weeks. In the remaining six cases, the PSA fell after treatment but remained persistently elevated above the normal range (9.7 ng/ml; range = 4–14.9 ng/ml). Eleven of the symptomatic cases became asymptomatic after treatment.

The failure of the PSA to return to normal in six cases may be due to bulky benign prostate hyperplasia⁹ or an agerelated variation in PSA.¹⁰ However, this group requires careful urological follow-up.

An uncomplicated UTI in men with BPE appears to be the cause of an elevated PSA. Following eradication of the UTI, the PSA normalizes in the majority of cases. The half-life of PSA is between 2.2 and 3.15 days. Estimation of the serum PSA in men with BPE on digital rectal examination with a suspected or documented UTI is therefore not recommended for a period of at least six weeks after successful antibiotic treatment. This will reduce the number of patients undergoing negative prostatic biopsies — a procedure not without an associated morbidity. 12

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Hospice-at-home

Sir,

The provision of home care services for people who are dying has increased rapidly in the past 10 years, yet in 1990 only 29% of cancer deaths with a terminal period were at home, 1 despite many people wishing to die there. 2.3 Hospice-at-home differs from traditional services by providing a 24-hour service and 'hands on' care rather than performing a more advisory role. Previously, Koffman *et al*⁴ found that this type of service was able to help HIV/AIDS patients who wished to remain in their homes.

We studied the impact of a hospice-based, hospice-at-home scheme over two years. The service was run by a multi-disciplinary team including four care assistants, 12 bank care assistants, and a part-time occupational therapist, social worker, and nurse. Information was collated on the activity of the service, the place of death, changes in inpatient length of stay, the number of deaths in the local hospital, and home death rates for the district. A cost-minimization analysis was also carried out.

There were 122 admissions to the scheme over the two-year period; 43% were male, 57% female, and 77% were aged over 65 years. Most patients were referred to the scheme from the community and were living alone. The average length of stay was 10 days. Almost 65% of people in the scheme were able to die at home. This percentage was 23% higher than that achieved by the Macmillan service throughout the same time period. The average length of stay shortened from 16.6 to 12.7 days during the period the scheme was operating. Contracting data showed a marked increase in the number of patients admitted to the hospice between 1993 and 1996 for a similar number of occupied bed days. There was no impact on the numbers of people dying in the local hospital or on the rate of home cancer deaths in the district. The total cost of the service was £105 000 and the cost per admission to the scheme was £861. If we take successful outcome as a home death, then the number needed to treat (NNT) to achieve a successful outcome over the two-year period was 2.2. A more conservative estimate is obtained if we look at the extra percentage of home deaths that the scheme facilitated: the NNT becomes 3.0 and the cost becomes £5121 per extra home death.

The study had a number of limitations because of its retrospective nature and short time scale. Home death rates and lengths of stay may have been affected by a number of other factors operating at the time. The scheme was, however, able to enable a high percentage of those referred to it to die at home despite the fact that most of them lived alone. We believe these services need further evaluation as they may contribute greatly to enable dying patients to be at home.

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De-reimbursement of vaccines

Sir,

At a recent 1997 conference of local medical committees, the proposal was adopted that the regulations be amended to enable GPs to charge for all travel immunizations. This will be an attractive proposition to the Government, financially burdened with escalating health care costs, but it needs careful consideration.

Options to the current system for travel vaccines include:

- Transference to NHS prescription of those vaccines currently free to patients in England and Wales, as occurs in Scotland, where the patient collects the prescribed vaccine from the pharmacist and then returns to the surgery for injection
- Payment from those who can afford it
- Cessation of all NHS payments for travel immunizations, provision of this service being left to the open market.

A charge to the patient is a deterrent to seeking appropriate advice and to taking recommended preventive immunizations. There has already been a rise in malaria notifications following the removal of antimalaria prophylaxis from NHS prescription in 1995, which pre-dates the media publicity about Mefloquine. The costs will be higher for those with large families travelling to visit relatives in areas such as the Indian sub-continent, a group already accounting for 48% of malaria notifications (total >750 in the first five months of 1997; communication: Malaria Reference Laboratory, 1997). This raises the concern that those at greatest risk could become the most compromised if limited finances restrict attendances in GP surg-