

a consequent lowering of the relative risk estimate.

Further information on the cervical screening follow up protocols for women with condylomata acuminata and on treatment protocols for the various stages of cervical intraepithelial neoplasia would aid interpretation of these data.

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- 1 Sigurgeirsson B, Lindelöf B, Eklund G. Condylomata acuminata and risk of cancer: an epidemiological study. *BMJ* 1991;303:341-4. (10 August.)
- 2 Chuang T-Y, Perry HO, Kurland LT, Ilstrup DM. Condylomata acuminatum in Rochester, Minn, 1950-1978. II. Anaplasia and unfavorable outcome. *Arch Dermatol* 1984;120:476-83.

**AUTHORS' REPLY.**—Adrian Renton and Luke Whitaker correctly point out that the power of our study to detect an increased risk of invasive cervical carcinoma is not great. The detection of such an increased risk was not, however, the main result of the study, and we point this out in the discussion.<sup>1</sup>

We also concluded that the risk of carcinoma in situ of the cervix might be less than previously thought and compared the risk with that in the study of Chuang *et al.*<sup>2</sup> We calculated confidence intervals based on the Poisson distribution for the data presented in the study of Chuang *et al.* because we believe that this makes the results more comparable to those of our study. We still believe that the risk of carcinoma in situ after a condyloma is lower than previously thought. Even though women in this population are more likely to have "lower grade neoplastic lesions of the cervix diagnosed and treated" this should equally apply to the cohort studied by Chuang *et al.* The results of this study do not apply to the population as a whole as Renton and Whitaker have pointed out, not only because "lower grade neoplastic lesions of the cervix might be diagnosed and treated" earlier but also because condyloma is mainly caused by human papillomavirus types 6 and 11 whereas cervical neoplasia has mainly been associated with types 16 and 18.

Screening programmes covering the age group 30-49 years were started in Sweden between 1967 and 1973. Almost 60 000 cases of in situ carcinoma and 17 000 cases of invasive carcinoma were registered in Sweden between 1958 and 1980. Within the screened cohorts and age groups the incidence of invasive carcinomas was halved and there was a parallel fall in mortality.<sup>3</sup> As Renton and Whitaker point out, if women with condyloma are more intensively followed up with respect to cervical neoplasia, low grade lesions might be diagnosed and treated, thus biasing the incidence of carcinoma in situ in this population. During the study period women with condyloma were not specially followed up with respect to cervical neoplasia.

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- 1 Sigurgeirsson B, Lindelöf B, Eklund G. Condylomata acuminata and risk of cancer: an epidemiological study. *BMJ* 1991;303:341-4. (10 August.)
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## Developing new drugs for cancer

SIR,—In their editorial on developing new drugs for cancer G M Mead and C J Williams make

several important general points about the funding of clinical trials.<sup>1</sup> Many of these trials, both phase III and phase IV, now take place in general practice, where there are not usually clinical departments to receive the fees paid in company led trials. When these fees are based, as they often are, on a calculation per person an ethics committee has the task of ensuring that their level is not such as to constitute a reason for ethical objection.

The clinical research ethics committee of the Royal College of General Practitioners recently convened a meeting of interested bodies to discuss this issue, as a result of which guidelines were produced to send to funding bodies. These guidelines are as follows.

Firstly, the sum of money offered to a general practitioner should be related to the time taken and the work to be done over and above that required for the normal care of a patient with that condition.

Secondly, the sum of money should not be such as to be an improper inducement to recruit patients to a study or to retain them once they have been recruited.

Thirdly, payments per patient cannot be excluded from the calculation of the remuneration of general practitioners taking part in studies, but the number of patients should not be the only factor taken into consideration in determining the remuneration.

Fourthly, agreement about payments should state how many patients are expected to be recruited to the study and the arrangement made for those who withdraw or are withdrawn.

Finally, the current hourly rates recommended by the BMA's private practice and professional fees committee for non-NHS work should be the normal basis for the calculation.

The clinical research ethics committee believes that the adoption of these guidelines will avoid past difficulties.

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- 1 Mead GM, Williams CJ. Developing new drugs for cancer. *BMJ* 1991;303:1005-6. (26 October.)

## Sudden deafness after dental surgery

SIR,—Roy W R Farrell and colleagues recognise that exposure to noise may be a cause of the deafness that they describe after dental surgery.<sup>1</sup> They may, however, have underestimated the risk from this source.

Levels equivalent to 90 dB continuously for eight hours cause a significant hearing loss in 4% of the population during a working lifetime.<sup>2</sup> Such measurements are an assessment of exposure, but readings may be taken at a considerable distance from the ear. As the inverse square law applies to measurement of noise<sup>3</sup> the same source applied perhaps 4 cm from the ear—as in a patient whose tooth is being drilled—will produce a noise dose 64 times that which would have been received if the same source had been held 32 cm from the ear. This would account for a relative increase of 36 dB.

Coles and Hoare estimated the equivalent continuous noise level for dentists as being around 60-64 dB but up to 84 dB.<sup>4</sup> The addition of 36 dB to the higher levels takes the total to 120 dB. This is certainly around the pain threshold, and at this level the effects of 28 seconds' exposure may be equated to eight hours at 90 dB. These calculations, of course, relate to relative levels through the same conduction medium, and the bone conduction experienced in part by the patient will undoubtedly be different from the air conduction experienced by the dentist. Additionally, the effects of exposure to very loud noise of short duration are more difficult to define than those of long term exposure to quieter noise.

The other consideration that has been overlooked is the possible effect of vibration. The effects on the fingers, wrists, and forearm of occupational exposure to vibration are well recognised and include localised and general sensorineural and vascular phenomena. These probably reflect a pathological effect superimposed on variable individual susceptibility. Consideration of the occupational effects of the closely related phenomena of noise and vibration might well provide a clue to the pathophysiology of the deafness produced after dental surgery.

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- 1 Farrell RWR, Pemberton MN, Parker AJ, Buffin JT. Sudden deafness after dental surgery. *BMJ* 1991;303:1034. (26 October.)
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SIR,—Roy W R Farrell and colleagues describe four cases of sudden unilateral deafness after dental surgery and propose theories for the aetiology of this rare symptom.<sup>1</sup>

I question their proposal that local communicating vessels are responsible for transmitting a vasoconstrictor used in dental local anaesthetic cartridges, causing localised vasospasm of the cochlear division of the internal auditory artery and hence sudden deafness. The communicating arteries in question arise from the stylomastoid branches of the occipital artery,<sup>2</sup> a branch of the external carotid. The occipital artery does not supply the teeth or oral region at all, these structures being supplied by the many branches of the maxillary artery. It therefore seems unlikely that a dental local anaesthetic solution containing a vasoconstrictor deposited in the oral tissues would be carried to the cochlear artery at all or be carried there at a sufficient concentration to induce vasospasm.

As Farrell and colleagues suggest, a neurogenic reflex arising from the trigeminal nerve is a likely explanation. I suggest that this might originate from the nerves to the temporomandibular joint as these may be stimulated during prolonged opening of the mouth.

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- 1 Farrell RWR, Pemberton MN, Parker AJ, Buffin JT. Sudden deafness after dental surgery. *BMJ* 1991;303:1034. (26 October.)
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## Necropsy as a monitor of clinical diagnosis performance

SIR,—In his paper discussing whether necropsy is a valid monitor of clinical diagnosis performance Rodolfo Saracci rightly states the importance of measuring sensitivity and specificity when comparing clinical diagnoses with postmortem findings.<sup>1</sup> He does not, however, illustrate this by his examples.

Firstly, he seems to be comparing two entire hospitals rather than patients drawn from similar populations. Secondly, his example illustrating assessment of clinical diagnostic sensitivity in two hospitals is based solely on the postmortem diagnosis of myocardial infarction—a condition

whose pathological identification is often difficult, variable, and contentious. His observed difference in sensitivity would be more likely to reflect pathological sensitivity than clinical sensitivity. Thirdly, his example illustrating unchanged sensitivity and specificity in the clinical diagnosis of cancer ignores the changing incidence of various cancers and differing hospital populations of patients with cancer and fails to mention that the comparison standard—necropsy—has itself changed in the past 30 years. It has never been a standard procedure.

The author's suggestions for the future may be of practical value in France, but they are not in the United Kingdom. Firstly, assessment of error in postmortem diagnosis requires a standard detailed postmortem examination—a process that could currently occur only in a centre of excellence with adequate staffing and funding. The error rate found could never be applied widely outside such a centre because of the variable quality of both consent and coroners' postmortem examinations. Secondly, current legislation does not allow post-mortem examinations to be performed in a way that would allow proper sampling.

Saracci's article appears in the Audit in Practice section of the journal, but its suggestions have little value in England and Wales without radical reform of the Human Tissues Act and the coroners' system together with considerable changes in the teaching and practice of necropsy. They are not likely to be part of audit in practice in the United Kingdom for many years.

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1 Saracci R. Is necropsy a valid monitor of clinical diagnosis performance? *BMJ* 1991;303:898-900. (12 October.)

## The rise of post-traumatic stress disorders

SIR,—I wish to add a few comments to Gary Jackson's editorial on post-traumatic stress disorders.<sup>1</sup> This term arose out of work with American veterans of the Vietnam war, who first attracted attention because so many became spectacular social casualties, unable to take up ordinary roles and liable to violent and self destructive behaviour. In contrast, British service personnel who saw intense, albeit shortlived, fighting in the Falkland Islands have a high prevalence of post-traumatic stress disorders five years later (nearly one in four) but have unremarkable work and social lives.<sup>2</sup>

I studied peasants displaced by the war in Nicaragua, all survivors of atrocities, and found that features associated with post-traumatic stress disorder were common, but these people were nevertheless active and effective in maintaining their social world as best they could in the face of the continuing threat of further attacks.<sup>3</sup> Indeed, this threat rendered a "symptom" of the disorder like hypervigilance adaptive. When these people did seek treatment it was for psychosomatic ailments, which are not included in the definition of the disorder. Studies of, for example, Cambodian war refugees, both in border refugee camps and in the United States, show similar findings.<sup>4</sup> The diagnosis of post-traumatic stress disorder says little about ability to function.

Medical models, focusing on individual psychopathology and liable to Western ethnocentrism, have inherent limitations in capturing the complex ways in which individual people, communities, and indeed whole societies abroad register overwhelming tragedy, socialise their grief, and reconstitute a meaningful existence. What seems central, and anthropological reports concur, is that

it is in a social setting that the traumatised who need help reveal themselves and the processes that determine how victims become survivors (as most do) are played out over time. Arguably, a telling example of what happens when social networks are not supportive arose when the American veterans came home to find that their nation and, more subtly, their families were disowning their guilt for the war and blaming them instead. This rejection was surely an important factor in the subsequent genesis of their social dysfunction. At the moment the diagnosis of post-traumatic stress disorder does not address these issues.

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## Postoperative feeding

SIR,—Nicholas D Maynard and David J Bihari highlight the advantages of enteral nutrition and the dangers of parenteral nutrition.<sup>1</sup> Enteral nutrition, which can be given to a much wider range of patients postoperatively than traditional teaching dictates, protects mucosal integrity and reduces bacterial translocation, whereas parenteral nutrition is associated with problems with the catheter and hepatobiliary and other complications.

Against this background the authors' assertion that "the time has come for formal comparisons of enteral with parenteral nutrition in severely ill patients" is inappropriate. Unless new evidence emerges to suggest a particular advantage from specific nutrients administered intravenously such a study would be unethical. There is no doubt that patients who are unable to eat must be given nutritional support, nutritional support should be administered enterally, and parenteral nutrition is required only when intestinal function is unavailable or inadequate. Consequently most parenteral nutrition is supplemental rather than total, and the term total parenteral nutrition should be restricted to those few patients who have no intestine or no intestinal function.

Finally, with reference to the authors' remarks about the dangers of Intralipid it is worth pointing out that use of this energy source in the short term permits supplemental and possibly total parenteral feeding through a peripheral vein, thus avoiding the more serious complications. Furthermore, during long term central parenteral nutrition the risk of venous thrombosis is considerably reduced when some of the energy requirements are provided by Intralipid.

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- 1 Maynard ND, Bihari DJ. Postoperative feeding. *BMJ* 1991;303:1007-8. (26 October.)
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## Disasters in the inner city

SIR,—I read David Adshad's personal view on general practice in an inner city on the same day that I learnt that an enthusiastic doctor with an

impressive research record had resigned from a partnership in inner city Leicester to take up a post in semirural practice. David Adshad says that the fires that occurred were only one factor in his decision to leave his inner city practice. I would like to illustrate from our recent experience some of the other factors that may have played a part.

**Workload**—Demand for appointments and home visits has risen in the past year—for example, night visits during April to September this year increased by 16% over the same period in 1990. Attempts to educate patients towards using the service more responsibly are frequently met with incomprehension or hostility.

**Violence**—Although we and our staff have not yet been physically harmed, obscene language and aggressive behaviour are common both in the reception area and in telephone conversations.

**Crime**—We have reported to the police five burglaries or acts of vandalism against practice property or personal property in the past month.

**Income**—In the first full year of the new contract the practice's net profit rose by only 6% despite our achieving higher rate targets and offering a full range of other income generating services.

**Premises**—We work from a grossly inadequate building. The cost rent scheme will meet only 60% of the cost of bringing it to an acceptable standard. It is a daunting decision to fund the rest of the cost from a practice income that may be declining.

**Recruitment**—We received just six applications for a partnership vacancy despite our close association with a university department of general practice.

None of these problems amount to a disaster. Taken together they illustrate the morale sapping strain on inner city doctors. We feel abandoned by both the Royal College of General Practitioners and the BMA. Training seems to produce general practitioners with a vocation to practise in comfortable market towns. If the fall in applications to vocational training schemes and the steady loss of talented doctors from urban deprived areas continue I foresee the implosion of general practice in these areas as doctors are squeezed by mounting demand and dwindling resources.

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1 Adshad D. Disasters in the inner city. *BMJ* 1991;303:101. (19 October.)

## The right to know

SIR,—Though many would agree that the new legislation allowing patients to have access to their written medical records is on balance a positive step, the question of the need for modifying medical records to make them more comprehensible to patients is not as clear cut as Paul McLaren's editorial seems to imply.<sup>1</sup>

Medical records must serve primarily as a medium for condensing clinical information in a form that can be rapidly assimilated by other health care workers who are concerned with a patient's care. Although summary records held by patients may be helpful in some circumstances, they cannot be expected to replace conventional medical records. It is not merely the jargon inevitably used in medical records that will be incomprehensible to many outside medicine; many of the concepts of disease processes and their treatment are complex and cannot be adequately explained to those with little medical knowledge in a format constrained by the need to be concise.

Before concentrating our attention on the way in which we write our medical records we must ask what motivates patients to seek access to their records. Two probable reasons are that patients wish to know more about their condition and its