stop as it is clearly dangerous. Perhaps either the Department of Health and Social Security or the manufacturers should intervene to make this commonly known, possibly by placing a warning in the packaging.

The other lesson to be learnt from this series of mishaps is that the tube was inserted in most cases because the patients were considered to be medically unfit for surgical correction of their dysphagia. Most of these procedures were performed in district general hospitals, where specialist medical, nursing, and technical support for operating on patients with severe chronic debilitating diseases is often limited. Surely in 1987 such patients should be referred to specialist centres with experience in the perioperative management of patients with such cardiovascular diseases, respiratory disorders, and metabolic disturbances and not offered compromise solutions with well documented complications.

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1 Poston GJ, Pickering BN, Rahamim J. Disintegration of Celestin tubes. *Br J Surg* 1983;70:130.

## Assault on a GP

SIR,—As Dr Peter Ford pointed out (7 March, p 617) the assault experienced by Dr Cembrowicz was not unlike the assault I myself experienced when I was in general practice. There were some differences, however, as I was given overwhelming support by the police and the Medical Defence Union, as well as by my colleagues, partners, family, and friends. Through the Medical Defence Union an early application was made on my behalf to the Criminal Injuries Compensation Board, who not only gave me an interim payment, which enabled me to recoup the cost of new clothes and glasses that had been damaged in the assault but also paid what I felt was an entirely realistic sum of money when I had recovered fully. Furthermore, they reviewed my case a year later, when I was able to report that I had suffered no adverse residual effects from the assault, a view supported by my own medical advisers. The decision to approach the Criminal Injuries Compensation Board was not difficult to make; it did not involve me in any legal action against a previous patient, and I was using a facility available to any citizen who is the victim of criminal injury. I hope the unthinkable will not happen to many doctors in the future, but, sadly, I fear it will, and if it does then any doctor assaulted should ask his defence body to seek the services of the Criminal Injuries Compensation Board.

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SIR,—Dr Cembrowicz (7 March, p 616) raises somes important issues, but it is a pity that a psychiatrist was not approached to comment on this interesting case.

In this particular case of violent assault it seems that the assailant was not obviously mentally ill, but even if he had been there would still be a strong case for prosecution. Mental illness, real or suspected, does not provide carte blanche for law breaking, and in many circumstances the only effective way of handling violent patients is by legal action. Indeed, it is often positively advantageous for the mentally abnormal offender to appear before the courts before being assessed or treated by a psychiatrist.

Psychiatry does not offer an alternative to the law in handling such cases. Mental illness is often invoked as an excuse for criminality, yet only a minority of those suffering from mental illness commit crimes. Moreover, general adult psychiatrists do not have any special skill in handling violence, and psychiatric treatment will not necessarily alter violent propensities. Thus general adult psychiatric units are not necessarily suitable places for handling and containing violent people. Forensic psychiatrists, on the other hand, may have a larger role in dealing with such patients, but forensic psychiatry works in conjunction with the courts, not instead of them.

It is clear that Dr Cembrowicz's interests were not well served by the local police, who unfortunately seemed ignorant of the legislation relating to mentally abnormal offenders, or they could never have stated that the patient "was obviously mentally ill and would only be sentenced to a treatment order." The idea that the patient had been counterassaulted is ridiculous. Dr Cembrowicz would have been well advised to challenge the police handling of this incident rather earlier and to insist on providing a statement immediately. I agree with Dr Goodman that if "it is subsequently found that the police have no record of the incident representations should be made to the Police Complaints Board."

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SIR,—In his vivid account of an assault by a patient Dr Stevan Cembrowicz (7 March, p 617) describes an increasingly serious problem that predominantly affects colleagues working in general practice, in psychiatry, and in accident and emergency departments. Since we reported on the legal assistance given to Dr Frank Wells when he was assaulted by a patient[1] (he has kindly allowed us to identify him as the victim) your notices of division meetings have included numerous discussions on "the battered doctor," in which the literal problem and what to do about it has aroused as much concern as the threat of litigation.

Dr Cembrowicz writes "my defence society... advised me to consult my own solicitor" and concludes that "our professional bodies cannot represent us in these circumstances." Ms Clare Dyer comments that "The obvious bodies to provide legal advice and help for doctors assaulted in the course of their work seem to be the defence societies.... At the very least they should pay the costs of a Criminal Injuries Compensation Board appeal." Several general practitioners have since urged the Medical Defence Union to help Dr Cembrowicz, but I think that you probably invited Dr Ford to comment because Dr Cembrowicz is in fact a member of the Medical Protection Society. We agree with Dr Ford's comments and his emphasis on the fact that "protection societies can provide all the necessary help."

I can confirm that outrageous counter allegations are made when offending patients are prosecuted: a casualty officer who asked eight drunken friends who were accompanying a patient to leave was violently assaulted; the police initiated a prosecution, and the defendants formally alleged that the doctor had made the first assault and that they had acted in self defence. The Medical Defence Union's solicitors took over the case: the assailants were convicted, the doctor was vindicated, and the statutory compensation was also gained.[2]

Dr Mervyn Goodman urges (7 March, p 617) that the Department of Health and Social Security "should compensate all Health Service workers for the sequelae of any injury sustained in carrying out their duties." We would support the BMA in seeking to achieve this. We have notified members of the disappointing legal position that under the National Insurance (Industrial Injuries) Acts claims usually have to be based on accidents rather than deliberate acts.[3]

Particularly disturbing is the threat of repetition by an offender, and we make arrangements with our solicitors to keep track of the release dates of assailants sent to prison for assaulting doctors. One obsessive assailant was dealt with by a prohibitory injunction, a claim for damages, binding over, and eventual imprisonment.[4]

We admire greatly the bravery of doctors, their families, and their staff, who accept danger and actual injury as a manifestation of illness in most cases, offering tolerance and compassion far beyond the call of professional duty. The Queen's commendation for brave conduct was awarded to a young hospital doctor who in 1978 leapt forward to restrain a man who stabbed her consultant; the assailant was convicted of attempted murder and sent to Broadmoor.

You are right to highlight this professional hazard, which is becoming more widespread. As Dr Ford emphasises, this problem should be dealt with by the defence societies.

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1 Medical Defence Union. *Annual report*. London: Medical Defence Union, 1976:12.
2 Medical Defence Union. *Annual report*. London: Medical Defence Union, 1977:20.
3 Medical Defence Union. *Annual report*. London: Medical Defence Union, 1975:11.
4 Medical Defence Union. *Annual report*. London: Medical Defence Union, 1980:54-6.

## Effect of chloroquine on insulin and glucose homoeostasis in normal subjects and patients with non-insulin dependent diabetes mellitus

SIR,—Dr G D Smith and colleagues (21 February, p 465) showed an improvement in glucose tolerance in non-insulin dependent diabetics who were given chloroquine. Chloroquine's beneficial role may also, however, extend to some insulin dependent diabetics.

A 33 year old patient who had been insulin dependent for 22 years gradually increased her requirement for subcutaneous insulin despite conversion to human insulins. Initially, when she was receiving 200 IU insulin daily, intramuscular injections brought some improvement, but increasing resistance ensued and was not reduced by conjunction of the insulin with aprotinin, prednisolone, or a somatostatin analogue. She was admitted to hospital in severe ketoacidosis despite taking 1500 IU intramuscular insulin daily. She was readily controlled with intravenous insulin, but she did not respond to either subcutaneous or intramuscular insulin in high doses. Circulating insulin antibody concentrations were not increased, and free insulin concentrations did not rise after subcutaneous insulin was given. The subcutaneous insulin resistance syndrome was diagnosed. She was dependent on inpatient treatment, receiving her insulin through central lines, and plans were made to use an implantable infusion pump to allow her to leave hospital.[1]

After the report by Blazar our patient was given oral chloroquine phosphate 200 mg eight hourly.[2] While receiving 50 IU insulin subcutaneously every eight hours she initially required a further 70 IU a day intravenously to maintain normoglycaemia. Fifteen days after she had begun treatment with chloroquine she showed a dramatic return of sensitivity to subcutaneous insulin, heralded by a series of hypoglycaemic attacks, after which she was maintained on subcutaneous insulin

alone. Four weeks later she was discharged from hospital taking 62 IU daily. The chloroquine dose was gradually reduced, and she remained responsive to subcutaneous insulin.

The rarity of true subcutaneous insulin resistance has been emphasised.[3] The patient reported on by Blazar *et al* had accelerated insulin degradation in subcutaneous fat but also showed severe resistance to intravenous insulin.[2] There is evidence that, in addition to its action on hepatocyte receptors and receptor mediated degradation, chloroquine also inhibits lysosomal degradation in human skeletal muscle[4] and fibroblasts[5] and that it inhibits adipocyte insulin degradation in vivo.[6] Chloroquine's action may help to explain the pathogenesis of this rare syndrome as well as being useful in its management.

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1 Campbell IW, Kritz H, Najemnik C, *et al.* Treatment of type I diabetic with subcutaneous insulin resistance by a totally implantable insulin infusion device (Infusaid). *Diabetes Research* 1984;1:83-8.
2 Blazar BR, Whitley CB, Kitabchi AE, *et al.* In vivo chloroquine induced inhibition of insulin degradation in a diabetic patient with severe insulin resistance. *Diabetes* 1984;33:1133-7.
3 Schade DS, Duckworth MD. In search of the subcutaneous-insulin-resistance syndrome. *N Engl J Med* 1986;315:147-53.
4 Neal GW, Kitabchi AE. Insulin degradation by human skeletal muscle. *Biochim Biophys Acta* 1982;719:259-66.
5 Harris HL, Stentz FB, Kitabchi AE. Fibroblast degradation of human insulin: role of neutral and acid proteases in insulin degradation activity. *Diabetes* 1981;30(suppl 1):524.
6 Duckworth WC, Kitabchi AE. Insulin metabolism and degradation. *Endocr Rev* 1981;2:210-33.

SIR,—Dr G D Smith and colleagues (21 February, p 465) conclude that chloroquine may have a role in reducing postprandial hyperglycaemia in non-insulin dependent diabetic patients by decreasing insulin degradation. This potentially exciting finding needs to be qualified as, firstly, the pathophysiology of non-insulin dependent diabetes is heterogenous and increased exposure of peripheral tissues to insulin in some patients may exacerbate insulin resistance,[1] and, secondly, the use of changes in plasma C peptide and insulin concentrations to measure insulin secretion and hepatic extraction, particularly in the non-steady state after ingestion of oral glucose, is questionable because of the large individual variability in C peptide and insulin concentrations.[2]

There are now non-invasive techniques for assessing these variables. We suggest that such techniques should be used to assess the mechanisms of action, and consequently the role, of chloroquine in improving glucose tolerance in patients with non-insulin dependent diabetes mellitus.

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1 Reaven GM. Insulin secretion and insulin action in non-insulin-dependent diabetes mellitus: which defect is primary? *Diabetes Care* 1984;7:17-24.
2 Peiris AN, Mueller RA, Smith GA, Struve MF, Kissebah AH. Splanchnic insulin metabolism in obesity: influence of body fat distribution. *J Clin Invest* 1986;78:1648-57.

## Alcohol and violence

SIR,—The management of patients who claim to have been assaulted is an accepted part of the workload of every accident and emergency department. Increased violence is now expected every weekend, over the New Year in Scotland, and after football matches throughout Britain.

Our department enjoys a suburban setting and has perhaps been shielded from the violence witnessed by some inner city departments. Nevertheless, analysis of the number of patients who have been assaulted coming into the department over the past year shows an increase of large scale violent incidents. Between 2% and 5% of our patients who have been injured in accidents claim to have been assaulted (the true figure is probably higher), but around New Year the incidence increased dramatically.

Between midnight and 8 am on New Year's Day we saw 59 patients. Of these, 45 had sustained recent injury, and 24 (53%) of these claimed to have been assaulted, five having received human bites. All of the injured patients were intoxicated. Excessive alcohol consumption also precipitated the attendance of three of the "medical" cases (an epileptic, a diabetic, and a haemophiliac). Throughout the night the department was full of policemen and drunken people supporting their injured friends.

Some departments may accept this problem and others may as yet have no experience of it. Certainly, most senior doctors and senior policemen do not learn about it until the next day, and the general public views the subsequently published statistics with distant apprehension. The link with alcohol, so obvious to those of junior rank, who usually treat the patients, is rarely emphasised.

The only effective influence on alcohol consumption is cost. As Sir George Godber (24 January, p 245) pointed out, if the government really is concerned about public law and order it could show its conviction and be guaranteed success by increasing the tax on alcohol. Perhaps the budget surplus could then be used to finance the health service.

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## Effect of dietary cholesterol on plasma cholesterol concentration

SIR,—The report by Ms Jacqueline Edington and coworkers (7 February, p 333) is a fine example of the degree of precision that can be obtained in nutritional studies even in free living populations. An important conclusion is that reducing dietary cholesterol offers little benefit if the diet is already low in saturated fats. This implies that people need not avoid cholesterol rich foods, such as eggs, provided they have reduced their intake of saturated fats and increased that of polyunsaturated fats. This is one possible interpretation of the data.

A close examination of the results suggests that the conclusion on which they have made those interpretations can be questioned. Their study compared, in a crossover design, the effects on the serum cholesterol concentration of adding either seven eggs weekly (high cholesterol) or two eggs weekly (low cholesterol) to a prudent diet. Each crossover period lasted four weeks. The authors concluded that the serum cholesterol concentration was lowered significantly with the low cholesterol diet for the first four weeks but not at the end of the eight week study. The total cholesterol concentrations for the entire group were as follows: basic diet 5·70 mmol/l; high cholesterol period 5·57 mmol/l after four weeks and 5·57 mmol/l after eight weeks; low cholesterol period 5·43 mmol/l after four weeks and 5·46 mmol/l after eight weeks. These data are remarkably consistent, but only the difference between the two four week dietary periods is significant. Clearly, however, the difference at eight weeks was virtually the same as at four weeks and may not have reached significance because the overall differences were small.

The important questions are, firstly, whether the difference observed is important in relation to the whole community and, secondly, whether that difference can be ignored, as suggested by the authors. The actual difference was a 2·5% reduction in the serum cholesterol concentration. On the basis of most published prospective data and data on cholesterol lowering intervention, this fall in serum cholesterol concentration would be reflected in at least a 5% reduction in new clinical coronary artery disease events—in my view, a substantial benefit. Their interpretation can also be challenged on the grounds that not all individuals would make the necessary effort to lower saturated fat and increase the polyunsaturated to saturated fat ratio in their diets. The authors are correct in drawing attention to the effect of the interaction between dietary cholesterol and dietary fatty acids on the serum cholesterol concentration. An equivalent intake of cholesterol raises the serum cholesterol concentration more in those who have a high intake of saturated fatty acids than in those with a lower intake. Therefore, if the dietary modification of fatty acid intake were less the benefit of lowering cholesterol intake would be greater than that achieved in this study. This benefit might well apply to individuals in the community who would prefer to reduce their consumption of cholesterol rich foods than to make major cuts in their intake of saturated fat. Though I agree with the authors that the best public health approach is to emphasise a reduction in the intake of saturated fatty acids, they may have understated the additional value of also lowering cholesterol intake for the whole community.

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## Better reporting of adverse drug reactions

SIR,—Dr Frank Wells, medical director of the Association of the British Pharmaceutical Industry (14 March, p 704), raises important issues concerning the reporting of adverse drug reactions and will be discussed by the Committee on Safety of Medicines at the earliest opportunity.

As Dr Wells states, the Department of Health and Social Security (and indeed the Committee on Safety of Medicines) has always insisted that the reporting doctor should remain anonymous when details of adverse drug reactions are passed to pharmaceutical companies. He did not state the reason for this policy—namely, the concern that the reporting doctor would be subject to harassment by the company. This concern is also shared by the director of the association, Dr J P Griffin, who stated at a public meeting last year: "I wish I had no worries about the kind of correspondence that goes from companies to doctors. I agree that probably nine out of every 10, or perhaps 99 out of every 100, adverse drug reaction follow up letters are acceptable, but, within the last three months, I have had complaints from physicians, giving me letters that have been sent to them from member companies which have been harassing them. Harassment does occur. We are fooling ourselves if we believe that it does not."[1]

The spontaneous reporting of adverse drug reactions ultimately depends on mutual trust between the reporting doctor and the recipient of