whereas 19% of the women on diuretics had hypokalaemia of varying degrees.

My conclusions are that the evidence in favour of a general recommendation of potassium supplementation in elderly, non-digitalised cardiac patients on diuretics is insufficient and that elderly women are probably more prone to diuretic-associated hypokalaemia than elderly men.

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¹ Wilkinson, P R, *et al*, *Lancet*, 1975, 1, 759.

² Edmonds, C J, and Jasani, B, *Lancet*, 1973, 2, 8.

³ Healy, J J, *et al*, *British Medical Journal*, 1970, 1, 716.

⁴ Down, P F, *et al*, *Lancet*, 1972, 2, 721.

⁵ Davidson, C, *et al*, *Lancet*, 1976, 2, 1044.

⁶ Krakauer, R, and Lauritzen, M. To be published.

Beta-blockers and lipid metabolism

SIR,—Your leading article "Diet, energy balance, and genes—and serum cholesterol" (26 March, p 789) discusses the factors influencing lipid metabolism in relation to the genesis of ischaemic heart disease. The multifactorial basis of the common hyperlipidaemias is well demonstrated and you conclude by suggesting that further studies are needed to investigate the metabolic basis of the common hyperlipidaemias.

Adrenergic beta-blocking drugs have an established role in the treatment of ischaemic heart disease and hypertension and possibly exert a protective influence against myocardial infarction. These drugs have been shown to have many metabolic effects¹ and in particular there is evidence that they are capable of reducing free fatty acid levels during stress.^{2,3} However, little is known of the long-term effects of beta-blockade upon lipid metabolism. Recently Waal-Manning⁴ in a clinical study reported that the cardioselective drug metoprolol produced a significant rise in plasma triglyceride levels by as much as 42%. This observation is worrying since increased plasma triglyceride concentration is a recognised risk factor in ischaemic heart disease. It is possible that the chronic administration of adrenergic beta-blocking drugs to hypertensives, especially those with a pre-existing hyperlipaemic tendency, may not be beneficial in this respect.

I would suggest that there is a need for studies to investigate the long-term effects of beta-blockade upon lipid metabolism.

S P DEACON

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¹ Himms-Hagen, J, *Pharmacological Reviews*, 1967, 19, 367.

² Björntorp, P, *et al*, *Acta Pharmacologica et Toxicologica*, 1967, 25, suppl 2, p 51.

³ Somerville, W, *et al*, in *New Perspectives in Beta-blockade*, ed D M Burley *et al*, p 275. Horsham, Ciba Laboratories, 1973.

⁴ Waal-Manning H J, *Drugs*, 1976, 11, suppl 1, p 121.

The reprint game

SIR,—In recent issues there have been a number of letters expressing the attitudes of authors towards reprints. For some time now I have been making it a practice to enclose one American dollar in currency with each request for a reprint. It seems to me that this might constitute a mutually satisfactory general practice. I figure that if my interest is not that great I shouldn't be asking anyone else to go to any trouble. For the author

filling the request this will just about assure that his out-of-pocket expenses are met.

A A HOLZSCHUH

Midland, Michigan

Emetic response to salt

SIR,—I hasten to disagree with the suggestion of Drs C J C Roberts and H McNulty (26 March, p 840) that the sudden loss of consciousness of a 57-year-old woman following an overdose of oxprenolol (26 February, p 552) could have been caused by the salt emetic (which acted almost immediately) given by her husband. I wish to give an example of how the administration of a double-dose salt emetic which remained in a man's stomach for nearly an hour before being removed by another emetic did not have any dire consequences.

At 7 am in 1930 a young man, 21 years old, woke up with Monday morning depression and saw a green liniment bottle marked Poison on the mantle shelf. He decided to commit suicide, drank the contents, and threw the bottle out of the window, and stayed in bed to await results. At 7.45 am he felt ghastly, changed his mind, and called out to his brother to fetch the doctor at once. I came round by 8.15 am. He said that he did not know what the liniment was he had swallowed. He looked very pale and his lips were blue, but there was no corrosion around his lips or mouth.

I said, "I must go and find the bottle." He replied, "Don't leave me mate; save me!" I went through the first-aid book routine and gave him two tablespoons of salt in a tumbler of water with my compliments. He swallowed easily, but there was no emesis. After five minutes another two tablespoons of salt in a tumbler of water went down comfortably—still no result. I decided to go to the chemist's shop round the corner to fetch some apomorphine. He cried, "Don't leave me mate." I uttered the famous words from ITMA: "I go, I come back," and left. The chemist was raising his shutters at 9 am. I collected a tiny tube with 10 hypodermic tablets of apomorphine 1/20 grain (3 mg) each, and dissolved one tablet in a teaspoon of boiled water. I gave him a subcutaneous injection and three minutes later he brought up a bowlful of soapy looking water smelling of methyl salicylate linctus.

I went home to do the morning surgery and returned to the house to be told at 11 am that he had got out of bed, dressed and gone to work.

The emetic response to salt and water is usually under five minutes—as occurred in the oxprenolol case. In my case the salt and water remained for approximately an hour in this man's stomach. I believe that the methyl salicylate had an anaesthetic effect on the mucosa of the pharynx, oesophagus, and stomach preventing any sensation of nausea. The man was quite well after this suicidal attempt.

The first-aid handbook, 1929, says: "Repeat salt and water emetic every five minutes until vomiting occurs." This could be quite considerable if it was kept up for an hour—24 tablespoons of salt and 6 pints of water before emesis. For salt intoxication it all depends on how much is swallowed, how long it stays down, and how much is absorbed.

Apomorphine injections (or oral tablets) are no longer available. This stopped about 10 years ago because they were being over-used in so-called aversion therapy for alcoholism. Today ipecac syrup is recommended for use in the home. It is not readily available in all households but salt certainly is.

Beta-blockers are now being widely prescribed for angina and hypotension. The oxprenolol fatality does show that anyone who

swallows a month's supply in one go and seeks help *when staggering* is beyond the aid of emetics and pacemakers. Perhaps relays of attendants giving external cardiac massage for hours, without undue force, may be the solution.

N C HYPHER

Slough,
Berks

Allergy to diazepam

SIR,—My attention has been drawn to the letter of Dr S K Majumdar (12 February, p 444), in which I am quoted as saying that the active and common metabolite of all benzodiazepines is desmethyldiazepam. In fact I state¹ that desmethyldiazepam is the common metabolite of several benzodiazepines including medazepam, diazepam, and clorazepate. However, oxazepam is a metabolite of desmethyldiazepam and, like its chlorinated derivative, lorazepam, is fairly rapidly metabolised by conjugation with glucuronic acid and then excreted. Finally, both nitrazepam and flurazepam belong to different metabolic chains. Accordingly, cross-allergenicity between the various benzodiazepine groups cannot be automatically attributed to desmethyldiazepam.

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¹ Lader, M, in *Advanced Medicine—Topics in Therapeutics*, 2, ed P Turner, p 212. London, Pitman Medical, 1976.

Miscellaneous expense grants

SIR,—Many hospital doctors eligible for removal expenses are, I believe, experiencing difficulties in claiming reimbursement of unavoidable expenditure on moving. The BMA is trying to negotiate equality for doctors who, unlike any other NHS staff, cannot claim this grant as a lump sum. I would be grateful if any doctors who have examples of their hardship could write to me to support our claim to the Department of Health.

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* * * The Secretary writes: "The HJSC negotiating team is well aware of the problem. Negotiations have been going on for some time but have been thwarted by pay policy. The BMA secretariat has been and is in direct touch with the representatives of junior staff in the South-west Region. Some progress with the Health Departments is being made, but detailed figures would be most useful, particularly if copies of correspondence could be sent to the Secretary."—ED, *BMJ*.

Breath, alcohol, and the law

SIR,—The article by Dr T A A Alobaidi and others (18 December, p 1479) reported a wide range of values for the blood:breath partition coefficient for alcohol and concluded that "breath analysis is not an acceptable method for accurately determining blood alcohol concentrations." Referring to the claim that a