forms of malignant disease occur less frequently in those with a history of "allergic diseases" than in those without such a history.[4 5]

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1 Rimington, J, *British Medical Journal*, 1971, **2**, 273.
2 Holland, W W, *et al. Archives of Environmental Health*, 1965, **10**, 338.
3 Read, J, and Selby, T, *British Medical Journal*, 1961, **2**, 1104.
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5 Gabriel, R, Dudley, B M, and Alexander, W D, *British Journal of Clinical Practice*, 1972, **26**, 202.

Risks of total hip replacement

SIR,—The purpose of my letter (31 May, p 498) which was commented on by Mr N E Shaw and Dr M W Johnstone (13 September, p 651) was not so much to discuss the pharmacology of methylmethacrylate monomer (MMA) as to get some indication of the frequency of cardiac arrest currently being encountered in total hip replacement.

Experience in my own unit would give the impression that no problem exists at all. Out of 10 356 total hip operations performed between January 1963 and June 1975 there have been two fatal arrests, but in one of these there were features which challenged the responsibility of MMA. However, the response which I have had to my letter suggests some disquieting possibilities.

I received only three replies, but these related to four incidents of cardiac arrest. Two were fatal. The medullary cavity was vented in three but not stated in one. The disquieting feature was that all these arrests had occurred recently (one had happened only two weeks before the appearance of my letter) and I received the impression that it was coincidence rather than incidence which prompted the replies. One correspondent, an anaesthetist, said, "I can assure you that difficulties still arise at the time when cement is put into the body."

From my reading of published experimental work and my own clinical experience I am inclining to the view that cardiac arrest in these operations must occur in patients whose hearts are already poised for arrest from unrelated causes and that the final stimulus for arrest is not specific for MMA. Thus in a heart poised for arrest the stimulus could equally well be the sudden injection into the blood stream of fat, bone marrow, and air, and all with the added effects of neurogenic impulses. Cases are encountered in which an arrest takes place before the cement stage of the operation is reached.

The idea that a fall of arterial pressure would precipitate cardiac arrest is a possibility, but the clinical picture does not fit: quite severe falls of pressure are not uncommonly encountered at all stages in these operations but they do not often end in arrest. Most often the picture is one of a fall of pressure occurring more or less simultaneously with arrest and without any warning. Hypersensitivity to MMA also does not explain the situation, because hypotension can occur at one operation but not at a subsequent procedure on the opposite hip and vice versa. From experimental work on animals there is no evidence suggesting that MMA can produce cardiac arrest. Transferred to man the fatal dose for dogs would require about 6 g of MMA to be given intravenously in 90 seconds.

Because of the disquieting deductions which could be made from my attempt at inquiry I think that some official body should circularise orthopaedic consultants for their experiences over the past two years; we should then know whether the matter deserves more serious study.

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More battering

SIR,—A particularly sad form of violence is that inflicted by patients on their relatives. I have seen this particularly in cases of stroke, but I believe that it occurs also in other forms of extensive brain damage. Most of the cases which I have seen occurred six months or more after partially successful rehabilitation from an extensive stroke, more often after right hemiplegia with language disturbance. One or two of the patients had previously been of a violent nature, but in most cases there had been a change in the patient's personality from a previously placid temperament. The violence was nearly always directed against the person devoting most care and attention to the patient, usually the wife. She was often the victim of abuse and foul language and of blows on the head and body. All the patients whom I interrogated denied the assault.

I know of no direct way of dealing with this situation; but a club for victims of stroke has proved to be of some value in giving the patient at least some social outlet, and a club for relatives has allowed these unhappy experiences to be shared with others who could understand them.[1]

I wonder if others have encountered this form of battering?

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1 Isaacs, B, Neville, Y, and Rushford, I, to be published.

Interactions with monoamine oxidase inhibitors

SIR,—As probably the longest user and most consistent advocate of the monoamine oxidase inhibitor (MAOI) drugs in Britain for over 12 years now, I agree with Dr J M McGilchrist (6 September, p 591) about their safety, provided that a minimum of *essential* precautions are taken. Patients will sometimes get some frightening headaches but very rarely die—I have had no deaths in 12 years and only one small brain haemorrhage, and even in this case the patient, now more careful of his diet, has been back on Parstelin (tranylcypromine and trifluoperazine) for five years.

But it is essential for the patient to be told not to eat cheese, because it is fermented milk, Marmite, which is also a strongly fermented food, and all other foods that have fermented or gone bad. One can get a headache, for instance, from rotten bananas but not from fresh ones.

Alcohol is safe. Bottles of whisky have been drunk by some patients on the MAOIs, the only result being that they got very drunk more easily and cheaply. Even morphine may be safe, and I know of some 10 cases with no side effects except a more prolonged morphine action. Both local and general anaesthetics are safe and thousands of general anaesthetics have been given to patients on the MAOIs for electric convulsion therapy. But Mu-Cron, for nasal congestion, can give a very nasty headache.

The Committee on Safety of Medicines is dishonest in not admitting how wrong they have been on imaginary dangers. They lose credibility, as with the halothane circular. One of the committee I know is using combined antidepressants (Parstelin and trimipramine) yet as a body the committee is officially saying how dangerous it is. One death from Sherlock's supposed MAOI jaundice has occurred in a village where there was an epidemic of infective hepatitis. I have had patients on iproniazid for over 10 years and their livers seem very healthy indeed.

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SIR,—The New Zealand Committee on Adverse Drug Reactions has had notification since 1965 of seven patients who manifested interaction between monoamine oxidase inhibitors (MAOIs) and foodstuffs, one of them fatal (from subarachnoid haemorrhage). This and two others followed the eating of cheese; one of broad beans; one of cheese, broad beans, and beer; and the two most recent ones of packet soups. These last contained hydrolysed yeast and hence monoamines, including tyramine. All of the above reactions have been accompanied by intense headache and, in five of the cases, documented paroxysmal hypertension. Only one of the reactions involved phenelzine but there seems no reason to suppose that the reactions may not involve all members of the group of MAOIs. Unfortunately we do not have recorded whether the broad beans were consumed with or without their pods, but the form in which they are eaten by at least some people in New Zealand is clearly capable of producing such reactions. The interaction with broad beans alone occurred twice in the same patient, who had been warned about cheese but not beans. The recent accession of packet soups to the range of active agents seems to merit their inclusion on any list of prohibited foods.

In the same period 14 interactions have been reported involving drugs of various kinds, with two deaths.

There could undoubtedly be debate in some of these cases as to the certainty with which a causal role could be allocated to the MAOIs, but the majority of them, including the fatal ones, are sufficiently well documented as to be beyond reasonable doubt.

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Heparin and ristocetin-reduced platelet aggregation

SIR,—Drs Jeanne Stibbe and E P Kirby (28 June, p 750) reported that after the start of cardiopulmonary bypass the plasma of patients undergoing open heart surgery inhibited ristocetin-induced platelet aggrega-