urinary potassium excretion was not diminished. The abnormalities in case 3 could not have been due to diuretic treatment as they emerged 10 days after the cessation of diuretic therapy (frusemide and spironolactone).

Dr Neary's main concern is with case 2, where hyponatraemia developed several days after surgery. Even if his hypothesis, of increased postoperative antidiuretic hormone secretion, is correct, this could not explain the normalisation of sodium values after albumin infusions in the other patients, especially the four who had undergone surgery.

Dr Rai and colleagues present interesting new data on the relation between low albumin and low sodium concentrations in geriatric patients. We agree that albumin or plasma infusions are not the only, or the ideal, way of correcting low sodium concentrations in all such cases, and not only because of expense. We used albumin-plasma infusions because of the severity of the patients' clinical condition. The reversal of hyponatraemia after infusions of albumin also allowed us to establish, we believe, a causal relation between hypoalbuminaemia and hyponatraemia.

The questions raised in the six letters are themselves evidence that the relation between albumin and severe hyponatraemia are not recognised or understood, and we hope that concepts have been clarified. We consider as new the observation that severe hypoalbuminaemia can result in severe hyponatraemia and that this can be rapidly reversed by correcting plasma albumin concentrations. Such patients, unless recognised, will continue to be misdiagnosed and mismanaged.

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1 Anderson RJ, Chung HM, Kluge R, Schrier RW. Hyponatraemia: a prospective analysis of its epidemiology and the pathogenic role of vasopressin. *Ann Int Med* 1985;**102**:164-8.

Do β blockers cause arthropathy?

SIR,—Interpreting the case-control study by Drs Patrick C Waller and Lawrence E Ramsey (14 December, p 1684) is difficult because their cases and controls were "overmatched" in respect of the variable under study—exposure to β blockers.

Their hypothesis is that patients with an unclassifiable arthropathy had greater exposure to β blockers than controls. They correctly matched for age, which is probably associated with both risk of arthropathy and exposure to β blockers and thus might confound an observed relation between the two. Conversely, matching for hypertension (or, more specifically, excluding all non-hypertensives) virtually ensured that both cases and controls had high and thus similar exposure to these universally popular hypotensive agents. Thus the cases and controls were selectively included in the study on the basis of their high likelihood of taking β blockers.

The useful data, not presented, are the proportions of all cases of arthropathy and a suitable control group with exposure to β blockers. Indeed, the proportion with diagnosed hypertension in both groups would probably give a similar answer given the tight association between diagnosed hypertension and β blocker treatment. A similar study of, for example, hydralazine as the risk factor might not incur the same difficulty as this drug is much less commonly prescribed.

Finally, there is a hint in the data presented that an opposite conclusion may be drawn. Forty two of their 127 patients had an unclassifiable arthropathy. If this proportion was higher than in non-hypertensive patients with arthropathy this would be consistent with an increased risk of unclassifiable arthropathy in hypertensive patients and hence perhaps with β blocker treatment. Their reported rate of 33% seems rather high compared with routine rheumatological practice, and thus such a comparison would be of interest.

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**The authors reply below.—ED, *BMJ*.

SIR,—Dr Silman implies that our study had insufficient power to detect a relation between β blockers and arthritis because cases and controls were "overmatched" for β blocker use. Certainly the study would have had greater power if the proportion of controls taking β blockers had been less.

In the "unclassified" group of people with arthritis 64% of the 84 controls were taking a β blocker. If β blockers had caused half of the 42 cases of "unclassified" arthritis we would have observed an approximate relative risk of 2·51, and this would have been significant. Had they been responsible for 20% (eight cases) of "unclassified" arthritis the expected approximate relative risk would have been 1·37, but the observed value of 1·24 was less than this. The 17 patients with "unclassified" arthritis who were investigated in the clinic and remained undiagnosed are of particular interest because we believe that they are similar to the cases described by Savola.[1] In this group of patients the approximate relative risk was 1·13.

If β blockers do cause arthritis at all the best estimate is that they caused less than 10% of these 17—that is, one or two cases. This was the total yield in three years from a very large hypertension clinic in which 60% of patients were taking a β blocker. As we stated in our paper, an uncommon association between β blockers and arthritis cannot be excluded. However, the results clearly show that arthritis is not a common adverse reaction to β blockers, as had been suggested.[1]

The prevalence of "unclassified" arthritis in the clinic is not really relevant. Arthritis had not been investigated and labelled in 25 patients because it was not considered an important or active problem. Some had longstanding arthritis, some had been investigated elsewhere, and in others symptoms were mild or transient. The 17 patients who were investigated because the arthritis was an active problem are those most relevant to the study.

In the final analysis the reader must choose between uncontrolled observations which suggest that arthritis is a common adverse reaction to β blockers[1] or our controlled observations which show no important relation. On the evidence available we do not believe that β blockers cause arthritis.

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1 Savola J. Arthropathy induced by beta blockade. *Br Med J* 1983;**287**:1256-7.

Manpower discussions

SIR,—The Hospital Consultants and Specialists Association was very surprised to read the evidence to the Short select committee given by the spokesmen for the medical profession, including the consultant representative on the BMA delegation, and felt obliged to conduct a survey to find out if there had been a change of attitude to the hospital staffing structure. We asked HCSA members and non-member surgeons, physicians, and gynaecologists and obstetricians whether they were in favour of a consultant led or a consultant based hospital service in their specialty. The results are shown in the table. The HCSA is grateful to all those who participated and also for the many constructive comments received.

Numbers of consultants preferring a consultant led or a consultant based service (as described in Short report)

	Consultant led	Consultant based
Surgeons	845	41
Physicians	677	54
Obstetricians	255	11
Total	1777	106

5 spoilt cards.

We note that the Central Committee for Hospital Medical Services at its last meeting (14 December, p 1739) accepted a redefinition of the Short report's terms and now calls consultant led "consultant based" and consultant based "consultant provided." A cynical observer might describe this as an attempt to move the goal posts.

However, we were pleased to see that the CCHMS is now prepared to consider the specialist grade, long advocated by the HCSA as the solution to the consultant:registrar ratio problem.

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SIR,—I am increasingly concerned that an appreciable number of BMA and Joint Consultants Committee leaders appear to be supporting the concept of a subconsultant grade to solve the hospital manpower problem. Negotiations on this problem with the Minister for Health are imminent, and while I would not wish to tie the hands of our negotiators I feel they must not fall into the trap of assuming they are in tune with the majority of the profession on this important issue.

The dilemma was brought sharply into focus at the last meeting of the CCHMS when the proposal to allow open competition for posts in the associated specialist grade was defeated by a significant majority (14 December 1985, p 1740). The pivot of the debate centred on the very question of expanding the subconsultant grade, and representatives of regional committees made it clear they were not prepared to see this happen.

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Identifying employees who may harm others

SIR,—The Health and Safety at Work, etc, Act 1974 places on employers a duty to ensure the safety at work not only of employees but also of people not in their employment but who may be at risk. I believe that to perform their legal duty properly employers would be wise to obtain from GPs details of the medical history of some prospective employees where certain chronic ailments would be specially hazardous to staff and others.

Since 1974 I have never received such an inquiry, which is surprising because GP records have been accumulating information from many sources since 1948 and these records automatically