Professor Wright in their patients with carpal tunnel syndrome than in the controls be due to the fact that they were not matched for occupation and that the former group were more active manually?

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¹ Brian, W R, Wright, A D, and Wilkinson, M, *Lancet*, 1947, 1, 277.

² Kendall, D, *British Medical Journal*, 1960, 2, 1633.

³ Birkbeck, M Q, and Beer, T C, *Rheumatology and Rehabilitation*, 1975, 14, 218.

⁴ Gunn, C C, *British Medical Journal*, 1974, 3, 624.

Bromocriptine and breast cancer

SIR,—In the light of recent articles concerning bromocriptine your leading article "Hormone receptors and breast cancer" (10 July, p 67) raises the possibility of the use of this drug to suppress the growth of prolactin-dependent breast tumours since, as you say, "the main peptide hormone implicated in promoting the growth of breast tumours is thought to be prolactin."

The theoretical and to some extent substantiated fear of oestrogens and other hormones as carcinogenic agents should, however, perhaps now be extended to include other drugs which interfere with man's delicately balanced endocrine functions—for example, phenothiazines, methyl dopa, and even indeed bromocriptine, which is used to suppress puerperal lactation, a physiological state which in itself affords some protection against breast cancer.

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Eggs and hypercholesterolaemia

SIR,—I was interested to read Professor V Lindén's comments (10 July, p 109) on the case report by Dr H P Rhomberg and Professor H Braunsteiner (15 May, p 1188). He suggests that the excessive hypercholesterolaemia following a daily intake of 8-12 eggs daily extending over a period of 3½ years can be mainly ascribed to the high vitamin D content in the yolk of eggs. Evidence is quoted which indicates that an excess of vitamin D raises the serum cholesterol level, thus leading to a significant relationship between a high intake of vitamin D and the incidence of myocardial infarction.

However, an excess of vitamin D also leads to increased calcium absorption and to an increased serum calcium level. In extensive animal experiments Selye *et al*¹ have shown that an acute heavy overdose of vitamin D compound leads to general metastatic calcification. The chronic administration of less massive doses of vitamin D causes calcification which is almost entirely confined to the aorta and its main branches and to the coronary arteries. Many pathologists and my own investigations² suggest that calcium deposits in the media of the large human arteries are one of the essential preliminary processes in atherogenesis. A high serum cholesterol, whether of endogenous or exogenous origin, seems to have an accelerating effect on atheroma formation when the ground has been prepared by ageing processes in the arterial wall.

In the case referred to a return to a balanced diet led to the disappearance of the skin deposits consisting mainly of lipids. The same response is less likely to occur in the case of atheromata.

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¹ Selye, H, Strebel, R, and Mikulaj, L, *Journal of the American Geriatric Society*, 1963, 11, 1.

² Elkeles, A, *Journal of the American Geriatric Society*, 1976, 24, 58.

High-dose corticosteroids in severe acute asthma

SIR,—The comparison of different corticosteroid regimens in acute asthma by Dr M G Britton and others (10 July, p 73) deserves further comment. The use of three different corticosteroids given by four different routes hinders easy comparison between the three groups. The fact that only one group received an intravenous infusion introduces a further difficulty.

The variability of the results in the small groups examined makes it difficult to come to any confident conclusions about the findings. The authors correctly use standard errors for comparing peak flow, REV₁, and FVC. However, the values quoted are very high and back-calculation of the standard deviations gives negative values well within the lower end of two standard deviations. It is patently absurd for any individual to have a negative value for a lung function test, and clearly a correction for skewness is required. Even if this is made, variations about the mean will probably still be large and the only likely conclusion should still be that the small patient numbers used in multiple patient groups give results which are very variable so that, taken overall, no statistically significant difference can be detected and likewise no useful clinical difference is detectable. The wide variation within each group is also likely to obscure any minority of patients failing to respond to smaller steroid doses. It may well also be true that high-dose steroids confer no extra benefit, but clear proof is still lacking.

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Rubella antibody tests in pregnancy

SIR,—The letter from Drs D A McSwiggan and C E D Taylor (17 July, p 174) is timely and highlights some of the difficulties encountered in using the results from testing pregnant women for rubella antibodies to best advantage.

For several years this laboratory has made these tests on all blood samples submitted from antenatal clinics and more recently those women with no evidence of immunity to rubella have been offered vaccination against rubella in the immediate postnatal period. Since general practitioner records do not appear to hold this information readily available it was hoped that the women themselves would be made aware of their immune status. In this way the intense anxiety which many experience when they are pregnant and come into contact with a case of presumed rubella would be avoided and the number of sera submitted for this reason would be

reduced. Experience has shown that this optimism was not justified, for the number of women seen because of this is as high as ever. If the first baby was born in our catchment area our own records or a single telephone call reveals the result of any previous test and usually offers immediate comfort to the anxious patient, though the serum is still tested in parallel with any previous sample which might still be frozen in store.

In this area we have therefore adopted the practice of giving all women who have had their babies in the maternity units a notice which gives dates and identification details and goes on:

Rubella titre:.....
You are immune to rubella (German measles)

If there is no evidence of immunity to rubella and vaccine has been given the second line of the notice is deleted and the administration of vaccine is recorded on the slip. It is hoped that this, and the explanation given, will enable the women themselves to know and perhaps remember this information.

In recent weeks an encouraging number of sera have been submitted from family planning clinics. It is to be hoped that the number will increase and the patients will be informed of and understand the significance of the test. There remain groups who, surprisingly, are unaware of their immune status and who should know before they become pregnant. These are schoolteachers, play-group helpers and supervisors, district nurses and midwives, nursery nurses, social workers, and house-mothers at council homes. Efforts to get these groups to be tested have been unrewarding so far, but wider publicity from general practitioners—for example, by notices in surgery or health centre waiting rooms—might be effective.

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Nitrazepam and diazepam

SIR,—Dr F O Wells (3 July, p 48) advocates the use of diazepam in place of nitrazepam as a safe, effective, and infinitely cheaper product. While this may well be accepted in the young and middle-aged adult, I venture to suggest that in the elderly patient with a failing autonomic nervous system the occurrence of postural hypotension with diazepam is a very real and serious risk. Falls from bed (these usually mean falls on getting up to go to commode or lavatory) are all too frequent in the elderly, often resulting in severe bruising and shock and sometimes in fractures of the femur and elsewhere.

Over the past two years it has been routine in this unit to measure the blood pressure in the erect as well as the supine position in all patients who have had falls or who complain of vertigo when standing. The prevalence of severe postural hypotension found has been quite staggering, and diagnoses of vertebro-basilar ischaemia, drop attacks, and transient ischaemic attacks have been correspondingly reduced, the first to an almost negligible level. The vast majority of these cases were clearly due to drugs, as the blood pressure stabilised completely or substantially within a few days of stopping them. Of the drugs responsible, excluding levodopa in Parkinson's disease, one-third were legitimate hypotensives perhaps