mediators in the suppression of an antifetal allograft response, including gestational hormones, blocking antibodies, and pregnancy associated proteins. Of the latter, the high molecular weight glycoprotein, pregnancy associated α_2 glycoprotein, has been shown by in vitro experiments to exert immunosuppressive properties.³

In a longitudinal study we have measured serum pregnancy associated α_2 glycoprotein concentrations by an enzyme linked immunosorbent assay in 20 pregnant patients with autoimmune thyroid disease. Throughout pregnancy patients in remission ($n=11$) had higher concentrations of pregnancy associated α_2 glycoprotein than those with active disease ($n=9$), the difference being significant during the third trimester (mean (SD) 1320 (750) mg/l v 580 (301) mg/l, $p<0.01$). Similar findings have been reported by Unger *et al*⁴ in a study of disease activity and pregnancy associated α_2 glycoprotein concentrations in patients with rheumatoid arthritis during pregnancy. Thus, it appears that pregnancy associated α_2 glycoprotein may well play an important role in modulating maternal immune response during pregnancy, thereby inducing or maintaining remission of autoimmune diseases.

Dr McGregor and others have emphasised the prevalence of postpartum thyroid disease, based on data from Japan and the United States. The problem is of the same magnitude in Europe.⁵ We agree that systematic epidemiological studies of the prevalence of postpartum thyroid disease in Britain are now required, and this is currently in progress in Aberdeen. Our experience suggests that the condition is common and is often overlooked⁶; we have encountered more than 20 cases over the past four years and most of these patients lacked the cardinal clinical features of thyroid dysfunction and yet had unequivocally abnormal thyroid function tests. Amino *et al*⁷ have related psychiatric symptomatology to postpartum thyroid dysfunction; the range of deceptive clinical manifestations is even wider since we have observed that the sole presentation may be persistent galactorrhoea with or without amenorrhoea.⁸

Finally, it is important to know the natural history of the postpartum thyroiditis syndrome, and this can be achieved only through long term studies. Nevertheless, our early experience suggests that many of these patients develop permanent hypothyroidism.⁹ This emphasises the importance of undertaking long term follow up of patients with transient postpartum thyroid dysfunction.

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Switching from private to NHS treatment

SIR,—Dr Brian Lewis is reported as having said that doctors cannot see patients privately for part of their treatment and then use NHS facilities for the rest (19 May, p 1552). I cannot accept this opinion. The logic of his statement is that any patient who is seen by a consultant privately and subsequently requires any medical or surgical treatment cannot have it on the health service. A ridiculous example might be that a patient requiring a non-steroidal anti-inflammatory drug for his arthritis could not be prescribed this by his general practitioner. It would ultimately lead to a patient not only having to decide whether to be a private patient or not but also whether a particular condition should be private or not.

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*.*Dr Lewis replies below.—ED, *BMJ*.

SIR,—In a necessarily brief report my statement could if taken out of context have the illogical construction put on it by Dr Whittaker.

I have no doubt that a patient has every right to decide that he does not wish, or possibly cannot afford, to continue to have private treatment. He has every right at that stage to avail himself of the facilities of the NHS (for which he has already paid through taxation) provided he joins the queue in the correct position. In short, if this is a surgical emergency he may gain admission that day, or if it is a non-urgent condition he may have to wait months if not years. A former private patient should not be penalised or advantaged by that status.

This does not mean, however, that the patient can switch back and forth between the private and NHS sectors more than once during treatment of the same condition, though clearly an NHS diabetic patient would have every right to avail himself of his accident insurance cover if he broke a leg and wished that dealt with privately. Similarly, if a general practitioner is prescribing treatment for his NHS patient it cannot preclude him seeking private consultant advice on that condition if this is what he and his patient want. If, following that advice, the general practitioner continues to prescribe, he has every right to do so under the NHS, but if he disagrees with the drugs suggested by the consultant he need not prescribe them himself. The patient might then obtain a private prescription from the consultant. Where good relationships are maintained and proper referrals made between GP and consultant, I would envisage this state of affairs to be rare.

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Meningococcal septicaemia treated with combined plasmapheresis and leucapheresis or with blood exchange

SIR,—In response to Dr B Bjorvatn and others (11 February, p 439), we believe that serum concentrations of thromboplastin and endotoxin are not reliable indices of the efficacy of plasmapheresis in removing endotoxins in meningococcal septicaemia. Other studies found no relation between s-endotoxin and clinical severity or mortality.^{1 2}

In 1979 Scharfman and others reported on the use of plasmapheresis in the treatment of meningococcal septicaemia complicated with disseminated intravascular coagulation.³ They used heparin to prevent coagulation and this could explain some of the effects seen by Dr Bjorvatn and others, who do not say whether they used heparin.

We have recently seen a 16 year old boy with meningococcal septicaemia and fulminant diffuse intravascular coagulation. He had a very bad prognosis (score 6/6) based on the system of Niklasson and others⁴). He had a positive reaction for fibrin monomers, low concentrations of plasma coagulation factors, almost undetectable concentrations of fibrinogen, and a thrombocyte count of $50 \times 10^9/l$. The concentration of fibrinogen degradation products was higher than 40 mg/l. He had circulatory shock and rapidly deteriorating renal, pulmonary, and circulatory function.

He was given antibiotics, methylprednisolone (2000 mg), and dopamine (infused to keep the systolic blood pressure around 100 mm Hg). Endotracheal intubation and a continuous positive airway pressure system caused an increase in the oxygen pressure in arterial blood. A bolus of 10000 IU of heparin followed by continuous infusion (25 IU/kg/h) immediately stopped the diffuse intravascular coagulation and improved respiratory function (fig). The infusion had to be stopped because of bleeding from the gastrointestinal tract and puncture sites. The diffuse intravascular coagulation was reactivated, and the heparin restarted at a lower infusion rate. This was effective (fig) and no bleeding was seen. The patient survived with no sequelae.

This case suggests that heparin may indeed be beneficial in some cases of diffuse intravascular coagulation caused by meningococcal

Blood gas analysis from a patient with meningococcal septicaemia complicated with disseminated intravascular coagulation. The patient was treated twice with heparin as indicated by H₁ and H₂.

septicaemia. It is important to know whether Dr Bjorvatn and others used heparin before being too optimistic about the value of plasmapheresis alone.

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*Dr Bjorvatn and others reply below.—ED, BMJ.

SIR,—Dr Pedersen and others suggest that the benefits of combined plasmapheresis and leucapheresis or blood exchange for the treatment of severe meningococcal septicaemia might be due to heparin. None of our patients, however, received heparin because previous studies have shown no conclusive effect of such treatment on survival from septicaemia with disseminated intravascular coagulation.¹⁻³ Heparin is beneficial in only a few disorders causing disseminated intravascular coagulation, and there is little evidence that heparin reverses any associated organ dysfunction.⁴

In our view, the apparent effect of combined plasmapheresis and leucapheresis or blood exchange on severe meningococcal septicaemia may have several explanations. The tendency of white cells to aggregate and then release vasoactive substances seems essential for the development of multiorgan failure as regularly observed in meningococcal septicaemia. We therefore suggest that removal of activated white cells and white cell aggregates as well as of other deleterious plasma components is important. In this therapy there is no place for heparin.

Dr Pedersen and others claim that we have suggested that serum concentrations of endotoxin and monocyte tissue thromboplastin are reliable indices of the effect of combined plasmapheresis and leucapheresis or blood exchange. This is a misinterpretation of our report. We stated that the observed fall in plasma endotoxin and in monocyte tissue thromboplastin occurred independent of these procedures. On admittance, however, the serum concentrations of these substances appeared to be of prognostic value.

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The dangers of drycleaning

SIR,—I was surprised by the comment by Dr F W Lunau that "there are few reported cases of [perchloroethylene hepatic] damage in man" (16 June, p 1818). I have seen two patients who have inadvertently sustained liver damage in the past five years, and the circumstances raise serious questions about the laxity of control of drycleaning units using this toxic substance.

The first patient was a hospital maintenance engineer who presented with a "toxic hepatitis," and it was some time before we realised that his duties involved maintenance of the hospital drycleaning plant. He had been exposed to perchloroethylene as often as once a week for some years without realising the hazards. Although his hepatitis initially settled down and he has not been further exposed to the chemical, there have been relapses of his condition.

The second man had a small drycleaning plant in his own shop and was aware that he had not followed proper precautions during cleaning and maintenance of it. Fortunately his liver damage seemed to resolve, and there is no evidence of recurrence.

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SIR,—The advice offered on the biological monitoring of persons exposed to perchloroethylene is misleading (16 June, p 1818). The information is based on early reports which suggested that there was an important relation between exposure to perchloroethylene and urinary trichloroacetic acid.¹ It has been established that most of the perchloroethylene absorbed is excreted unchanged in expired air and less than 3% is metabolised to trichloroacetic acid.² This limited metabolism to trichloroacetic acid makes measurement of this metabolite unsuitable for monitoring exposure to perchloroethylene, although its usefulness for monitoring workers exposed to trichloroethylene is well established.³

After an exposure of 50 ppm perchloroethylene over the whole working week the blood concentration is approximately 13 µmol/l (216 µg/100 ml).⁴ It is our current view that absorption of perchloroethylene is best assessed by measuring its concentration in the blood at end of shift towards the end of the working week. Our experience shows that blood concentrations greater than 8 µmol/l (132 µg/100 ml) are rarely encountered in the UK.

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Instant age-sex register

SIR,—We were interested to read Dr Henderson's account (30 June, p 1967) of transferring patient registration data directly from the local family practitioner committee computer to his own practice microcomputer. Such transfer not only offers administrative convenience for general practitioners but also may form the basis for future computer networks embracing primary care and other sectors of the NHS.¹

There are, however, potential pitfalls. Even if the local FPC has a computerised register—and relatively few have—local cooperation and technical skill must exist before any transfer can take place. If the facility is available, we suggest that the interested practice should first request a printout of its patient list, make corrections, and then return it to the FPC so that it can amend its register, before data is transferred.²

Although Dr Henderson mentions two ways of transferring data, there is a third. Floppy disc copies can be taken at the FPC and then sent through the post to be entered into the practice computer. Until sophisticated networks are established and compatibility problems have been solved, Dr Henderson's view that "discs should not be sent through the post," is unrealistic.

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Failure of comprehension in the National Health Service

SIR,—A letter appeared in the *BMJ* earlier this year (24 March, p 933) headed "Failures of communication in the National Health Service." Like Dr Christopher E Lennox, who wrote that letter, we too are 100% supporters of the National Health Service, but we have to place on record another though rather different example of failure of communication.

Last year, our senior colleague in this ophthalmic hospital felt obliged to seek early retirement. His letter stating this went to his colleagues and to the regional authority on 18 July 1983, and in the letter he said he was "anxious to give us plenty of time and had in mind 30 April 1984 for his departure." He also pointed out that his contract was for nine sessions and that it would "presumably be increased to full time or maximum part time." We agreed that nine months sounded plenty of time but, nevertheless, immediately informed both regional and district authorities that we wished the procedure for his replacement to be put in motion at once: we particularly emphasised that there should be no hiatus between our colleague retiring and his replacement taking up his post. Our special insistence on this was because we are an exceptionally busy subregional eye centre, which is two consultants below establishment; our colleague had carried the workload of two men for 27 years.

All agreed that he would need to be replaced and that the replacement's contract would have to be increased to maximum part time or full time. We waited with increasing frustration while the three health districts concerned argued over which should fund the two extra sessions. Finally, on 31 October