care teams in which general practitioners play an important but not an overruling and overriding role.

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1 Kempe CH, Helfer RE. *The battered child*. Chicago: University of Chicago, 1968.

Population study of causes, treatment, and outcome of infertility

SIR,—Mr M G R Hull and his colleagues note that the most successfully treated group with infertility comprised patients with clearly defined anovulatory disorders, the exception being those with polycystic ovarian disease, a condition they see as an "unsolved problem." We disagree that it is unsolved.

Patients with polycystic ovarian disease often fail to conceive despite prolonged antioestrogen treatment, and the use of exogenous gonadotrophins (human menopausal gonadotrophin) alone is frequently associated with complications, including premature luteinisation. We have described a therapeutic regimen using a high dose intranasal luteinising hormone releasing hormone analogue (HOE 766) to suppress circulating endogenous gonadotrophin levels and block the positive feedback surge.[1] This allows ovulation induction with human menopausal gonadotrophin without interference from the patient's own luteinising hormone activity.

Nineteen patients with polycystic ovarian disease and raised basal luteinising hormone levels, all of whom failed to conceive on antioestrogen therapy (>12 months) and who had premature luteinisation on human menopausal gonadotrophin therapy, have been treated with this combined therapy in 58 cycles: 17 pregnancies in 13 patients (68·4%) have been achieved. Premature luteinisation was eliminated in all cases and other management complications were reduced. These figures show that ovulation induction using combined therapy in women with polycystic ovarian disease is effective. The success rates are similar to those achieved in the management of other major ovulatory problems.

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1 Fleming R, Haxton MJ, Hamilton MPR, *et al*. Successful treatment of infertile women with oligomenorrhoea using a combination of an LHRH agonist and exogenous gonadotrophins. *Br J Obstet Gynaecol* 1985;92:369-73.

Alterations in lipid and carbohydrate metabolism attributable to cyclosporin A in renal transplant recipients

SIR,—Although we can confirm the observations of Dr K P G Harris and others on adverse metabolic effects of cyclosporin A in renal allograft recipients (4 January, p 16), the improvement in lipid and carbohydrate metabolism after conversion from cyclosporin A to azathioprine may not justify this change in medication in view of the risk of rejection. Unfortunately the authors reported only on patients who were successfully converted to azathioprine, while their follow up period was four weeks. We studied 30 non-diabetic recipients of cadaveric renal transplants before and three months after conversion. All other medication, including 15 mg prednisone, was kept similar. Conversion took place one year after transplantation, and at the moment the follow up after conversion is 6-12 months.

The trough plasma cyclosporin A concentration (measured by radioimmunoassay) before conversion was 80 µg/l (median). Fasting blood glucose values did not change on conversion, but the two hour glucose concentration after a 75 g oral glucose tolerance test decreased from a median of 6·7 mmol/l (122 mg/100 ml) (range 4·0-11·6 (73-210)) to 5·4 mmol/l (98 mg/100 ml) (range 3·5-10·7 (64-195)), $p<0·05$, Wilcoxon test. In all patients fasting serum triglyceride values decreased with a median fall of 0·72 mmol/l (64 mg/100 ml), while serum cholesterol also improved from 7·8 mmol/l (301 mg/100 ml) (median) to 6·2 mmol/l (239 mg/100 ml) ($p<0·01$). Serum creatinine decreased from 206 µmol/l (2·3 mg/100 ml) (median) to 147 µmol/l (1·7 µg/100 ml). However, we diagnosed acute rejection episodes in 7 out of 30 patients (23·3%) within six months (median two) after conversion. In three patients the rejection crisis could only partially be reversed and two patients lost their graft.

The improvement of both the renal function and the lipid-carbohydrate metabolism in our patients after one year of continuous cyclosporin A treatment suggests that the nephrotoxicity and the adverse metabolic effects of cyclosporin A are reversible and therefore not the result of structural damage. Moreover, we feel that the effect of conversion on the lipid profile and glucose tolerance, with their putative preventive effects on atherosclerosis, is trivial in view of the demonstrated increased risk for rejection and graft loss.

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Mid-arm and chest circumferences at birth as predictors of low birth weight and neonatal mortality

SIR,—Dr S K Bhargava and colleagues have presented data showing the relation between anthropometric measurements and birth weight (7 December, p 1617). Some aspects of their analysis call for comment.

They have concentrated on mid-arm and chest circumferences, which are highly correlated ($r=0·9$) and give very similar results. If the purpose is to detect babies weighing less than 2500 g, as the authors imply, then it would be more appropriate to use discriminant analysis to find which variables to use rather than selecting the two that were most highly correlated with birth weight.

It is not obvious in these circumstances that one wishes to maximise both sensitivity and specificity. A good case might be made for fixing a cut off point to reduce the proportion of low birth weight babies missed to, say, 5% if no harm is done by having false positives in this situation. This depends on what action results from detecting a baby calculated as weighing less than 2500 g.

The authors present regression equations for predicting birth weight from the two circumferences singly and together. From these analyses they estimated 95% ranges of birth weight for given circumferences. That for the combined regression ought to be the narrowest but is in fact much wider than either of those for the single regressions, which suggests an error in the combined analysis.

Lastly, the paper includes several examples of unnecessary (or spurious) precision, notably the regression equations which "predict" birth weight to a ten thousandth of a gram.

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Restricted private care

SIR,—The decision of Private Patients Plan to stop providing insurance cover for the treatment of alcohol and other drug dependencies is to be regretted. It destroys the illusion that private care can provide for even common and potentially disabling conditions. Private care must be seen for what it is—a luxury.

Such abrupt changes in policy play ducks and drakes with the interests of those who have a clinical commitment to alcoholism and drug dependency, including the private clinics, and also throw a sudden patient demand on the NHS. At least in the London area, specialised private beds for the treatment of the dependencies outnumber those in the NHS.

Of course, some dependent patients will be treated covertly under another diagnosis. This may lead to a damaging conspiracy of denial between the patients' private consultants and PPP. But most of all it reflects the prejudice against those with psychiatric illness in general and alcoholism and drug dependency in particular. PPP will still pay for the damage caused by smoking and overeating. This highlights the prejudicial and not rational decisions to cease to offer cover to those who are chemically dependent. Consumer research by PPP merely confirms the widespread nature of this prejudice.

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Vacuum extraction or forceps?

SIR,—Mr Gunnar Rydén's leading article (11 January, p 75) implies that the vacuum extractor is a Swedish invention.

The modern instruments have been developed and pioneered there, but historically the principle and first instrument are over 100 years old and belong to J Y Simpson.[1]

Simpson wrote to a colleague at the time: I have been up for 3 nights working . . . I will enclose in this two tractors, the instrument is now nearly perfect. I showed it last Wednesday to the Medico Chirurgical Society. There was a great crowd etc. The experiments went off beautifully. I fixed a small tractor the palm of my right hand before them and lifted up with it an iron weight of 28 pounds. It could lift double. One of the physicians of the St Petersburg Court is here. He admired the "idea" but doubted if it would really answer in practice. Well, I took him and others down a few days ago to the hospital to see a badish case, and fixed the tractor on. The operation was most successful. The Russian danced with joy, crying "C'est superb, superb; c'est immortalité à vous."[2]

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1 Simpson JY. On a suction-tractor, or a new mechanical power, as a substitute for the forceps in tedious labours. *Edin J Med Sci* 1848 IX.
2 Simpson M. *Simpson the obstetrician*. London: Gollancz, 1972.