Gender reassignment today

SIR,—Mr Grant Williams's letter (12 September, p 671) protesting about gender reassignment surgery requires a reply. He is unaware of studies done in our department, the results of which were presented at a conference in December 1986 at this hospital. We presented the results of a retrospective study of 150 patients and a second, randomised controlled study of 40 patients.^{1,2} We studied 150 male transsexuals at different stages of treatment: assessment stage (n=50); waiting list stage (n=50); and postoperative stage (n=50). The results indicated a significant reduction in neurotic symptoms and improved social state in transsexuals postoperatively compared with patients at the waiting list stage, who fulfilled the criteria for surgery but were awaiting operation, and assignment to an assessment group.

The second study compared two groups of male transsexuals who had been assessed and carefully selected for surgery. They were randomly assigned to one of two groups; the experimental group had their waiting time for surgery brought forward so that they were operated on within three months of fulfilling the criteria, and the control group had to wait for the routine two years before undergoing surgery. All the patients were equally matched for age, social class, number of years of clinic attendance, and several other variables that might affect outcome. The results suggested that after two years of follow up there were significant differences between the two groups on a number of psychiatric and social variables, showing a significant advantage for the experimental group over the controls.

Of the many male transsexuals operated on since 1984, not a single patient has requested shortening of the distal limbs. The most common surgical request, other than gender reassignment, is for thyroid cartilage reduction, and a minority request breast augmentation, a procedure which we discourage patients from pursuing.

Three major independent reviews have suggested that treatment produces unsatisfactory results or failure in only 10-15% of cases and that most patients who have gender reassignment surgery have a satisfactory outcome.^{3,4} A study by Robin *et al* suggested that 85% of male transsexuals who had undergone operation reported improvement in their condition, and none of the patients regretted the operation, including the 15% of patients who had surgical complications that were later corrected.⁶

In the early stages of assessment it is not uncommon to be presented with various patients with gender identity problems, including transvestites and effeminate homosexuals. The assessment of new patients includes screening for hormone concentrations and tests for evidence of infection with hepatitis B and the human immunodeficiency virus. Not surprisingly, a very small percentage of such patients show evidence of past infection with hepatitis B. Since 1984 no carriers of hepatitis B have received gender reassignment surgery.

Many of the patients who are referred are not classified as transsexuals. Those that are diagnosed as transsexuals have to fulfil strict criteria before being referred for gender reassignment surgery. We see 175-200 new patients a year and refer 30-40 a year for surgery, some years much fewer.

Transsexualism and severe gender dysphoria have all the characteristics of severe psychological disturbance associated with a great deal of suffering, which we have found to be much relieved by gender reassignment surgery in carefully selected patients. The opportunity to study and treat severe gender dysphoria and severe gender identity disorders is a recent development. Such studies may

lead to a better understanding of other disorders of gender identity and other types of pathological sexual behaviour, many of which cause great concern and distress in society today.

Those who fail adequately to integrate the contra-gender aspect of themselves into their total personality and suffer from severe gender dysphoria or gender identity strain deserve our concern, help, and scientific interest.

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District cancer physicians: integration or fragmentation?

SIR,—Dr L J Donaldson's leading article (19 September, p 682) criticises the report of the working party of the Association of Cancer Physicians on the subject of district cancer physicians on the grounds that its proposals do not imply an integration of services.¹ The type of integration that he seems to prefer is that where cancer services are centred in the subregional centres to the exclusion of any activity in district general hospitals.

The fallacy of this argument is shown by the existing pattern of cancer treatment based on radiotherapy centres, which are of necessity organised so that they are centrally placed to achieve the maximum efficiency of the capital investment in equipment. The problems that this causes for the patient with cancer are clear from the report; patients in many health districts receive their treatment at some distance from their home, with financial consequences to themselves and to the health authority and potential medical consequences when complications of the disease and its treatment arise. The alternative to centralised treatment is treatment by non-experts in the district general hospital. That this is something that happens even in the health region over whose clinical policy Dr Donaldson presides has been shown by Woll.² The current medical management of patients with cancer is therefore either conducted at a great distance or fragmented.

The appointment of district cancer physicians would facilitate the integration Dr Donaldson seeks by ensuring that those patients who are treated with chemotherapy in their local hospitals are managed by someone with the necessary skill. The need for this is illustrated by the work of gynaecologists; although they have considerable training in the management of diabetes or heart disease in pregnancy, they have no hesitation in referring patients to the appropriate physician, whereas when a patient requires chemotherapy for carcinoma of the ovary with drugs with a very low therapeutic index they have to take this on them-

selves. The second integrative function is in the liaison with the radiotherapy unit. The current pattern of weekly visits by the radiotherapist does not provide the best service for managing a patient with cancer. A patient may have a small cell carcinoma of the bronchus diagnosed one week and then wait seven days for the radiotherapist to see him and a further week for admission to the radiotherapy centre, during which time he may deteriorate from an eminently treatable state to being moribund. The appointment of a district cancer physician would ensure that the radiotherapist's time would be spent in dealing with genuine radiotherapeutic problems.

In his penultimate paragraph Dr Donaldson argues that the role of the district cancer physician in integrating the acute cancer treatment services with the supportive care role would introduce too great a rigidity. This seems to be a complete negation of his basic premise.

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Is schizophrenia a neurodevelopmental disorder?

SIR,—Drs Robin M Murray and Shôn W Lewis (19 September, p 681) address the issue of obstetric complications and potential neurodevelopmental deviance as a risk factor for schizophrenia, particularly in patients characterised by enlargement of the cerebral ventricles and cortical sulci. We wonder if their arguments might be extended not only to vulnerability to the disorder itself but also to the different patterns of response to its treatment with neuroleptic agents.

The major clinical, ethical, and potentially legal issue in the long term treatment of schizophrenia with such drugs remains the emergence of involuntary movements (tardive dyskinesia) in a variable proportion of patients.¹ We have recently found that schizophrenic patients with tardive dyskinesia are characterised by an excess release of developmental (primitive/neonatal) reflexes.² These signs, typified by the grasp, snout, corneo-mandibular, and glabellar reflexes, are readily released in the fetus and neonate but lost in the process of unhindered neuronal maturation and myelination that leads to normal adulthood.³ As their subsequent reappearance is usually associated with cortical or diffuse cerebral dysfunction² such data add weight to the increasing body of evidence that signs of "organicity" are particularly associated with, and may predispose to, tardive dyskinesia.¹ The excess release of developmental reflexes in schizophrenic patients with this movement disorder is perhaps suggestive of anomalies in brain development rather than cerebral deterioration from a once normal level of functioning.

Additionally, Drs Murray and Lewis note the greater vulnerability of the male brain to early damage. We have also found a greater severity of tardive dyskinesia among male schizophrenic patients affected by this movement disorder.⁴ A recent study has confirmed that neonatal periventricular haemorrhage, considered by Drs Murray and Lewis to be a potential cause of neurodevelopmental deviance, is more common in boys when pregnancy is complicated by factors such as prematurity and low birth weight.⁵

Perhaps anomalies in brain development may predispose not only to schizophrenia but also to

certain long term motor consequences of its treatment.

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Reported management of threatened miscarriage by general practitioners in Wessex

SIR,—We were dismayed to read in the report by Dr Christopher Everett and colleagues (5 September, p 583) that among general practitioners in Wessex 29% never gave anti-D to Rh(D) negative women after a complete abortion, and 77% never gave it for threatened abortion.

Though few fetal cells reach the mother's circulation during abortion, it has long been recognised that these may be enough to sensitise some of the 15% of women who are Rh(D) negative.¹ A minority of these women are not only able to respond to a tiny inoculum of Rh(D) positive cells but often generate the highest antibody levels, and subsequently suffer the worst problems from haemolytic disease of the newborn. The recommended policy is therefore to give prophylactic Rh(D) immunoglobulin to all Rh(D) negative aborting mothers, including, when necessary, even those who do not need it rather than missing those who do. When the Rh(D) state of mothers (especially primiparas) is unknown and cannot practicably be determined within 72 hours many people give prophylaxis anyway. It is thus essential that general practices carry a small stock of Rh(D) immunoglobulin to cater for such circumstances, in accordance with published advice.²

The incidence of haemolytic disease of the newborn fell dramatically after the introduction of prophylaxis but has levelled off at around 2.6 cases per 1000 live births, with a persistent fetal loss rate of about 0.1 per 1000 live births. Failures of administration of immunoglobulin account for many new sensitisations, and the survey referred to above points to a substantial source of those failures. Clear cut authoritative guidelines were published by the Department of Health and Social Security in 1971, revised in 1981, and distributed to all family practitioner committees. Summarised briefly, these require that all Rh(D) negative women receive an appropriate dose of anti-D immunoglobulin (500 IU (100 µg) for deliveries after 20 weeks and 250 IU (50 µg) for deliveries before 20 weeks and sensitising episodes).

The dose should be given within 72 hours of delivery (unless the baby is known to be Rh(D) negative), after abortion at whatever stage of pregnancy, and after every sensitising episode during pregnancy. These include threatened abortion,

antepartum haemorrhage, version, amniocentesis, and abdominal injuries.

The guidelines also recommended that the Kleihauer test to estimate the size of the fetal bleed is used wherever possible and that larger doses of anti-D immunoglobulin should be administered if the size of the fetal bleed merits it. If the published recommended guidelines are overlooked, as the recent survey suggests, we cannot expect any further reduction in the incidence of haemolytic disease of the newborn.

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SIR,—Dr Christopher Everett and colleagues advocate the use of portable ultrasound machines by general practitioners to help in the management of miscarriages (5 September, p 583). We agree that the quickest and most accurate means of assessing a threatened miscarriage is to perform an urgent ultrasound examination. We believe, however, that the provision of a portable ultrasound scanner to all general practitioner partnerships is not a practical proposition because of the capital cost and the difficulty of training sufficient doctors to run a safe service. A further problem would be the time that the practitioners would have to spend on domiciliary visits while waiting for the patients' bladders to fill.

We run a service whereby the local practitioners refer all cases of threatened or partial miscarriage directly to our radiology department. The patients are instructed to drink at least a pint of water before leaving their home (or doctor's surgery), are sent directly to the ultrasound room on arrival at the hospital, and are examined in between those with appointments. If the pregnancy is viable or the miscarriage is complete and the haemorrhage ceasing they are referred back to their general practitioners. If the miscarriage is incomplete or heavy bleeding persists they are referred to the on call gynaecology team for further assessment.

This system has the advantages of speed and simplicity. The patients are examined by a consultant radiologist with a good quality scanner without delay and without the need for a formal appointment (a covering letter or phone call is all that we ask). The system relies on close liaison between the departments of radiology and gynaecology and, in particular, on the flexibility of the radiographers in fitting in extra scans with minimal notice. In practice, we have found that the staff find this a rewarding and worthwhile service. A clinical trial of the efficacy and safety of this method of management has been completed and will shortly be submitted for publication.

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Chronic prostatitis

SIR,—I agree in sentiment with Dr Rosalind Maskell's views on prostatitis (5 September, p 611), in that the harder you look the more likely you are to find an underlying infective aetiology.

The problem, however, with Dr Maskell's work on fastidious organisms and their presence in the urine of symptomatic patients is that it is uncontrolled. To validate her statements on the role of fastidious organisms in prostatitis would require a controlled study with isolation data on asymptomatic patients, proper follow up of treated patients, and a placebo group. Fastidious organisms may have every right to be present in the urethra of some patients and hence may be present in the voided urine. I note that in Dr Maskell's recent paper only 33% of the patients in whom such organisms were cultured had pyuria, as, incidentally, did 12% of those with bacteriologically sterile urine.¹

Much further research into prostatitis is needed, particularly into so called abacterial prostatitis, before the possible role of fastidious organisms may be validated. Dr Maskell's views of the role of fastidious organisms are acknowledged by her own peers as controversial² and until more convincing data are forthcoming must continue to be considered so. Hamilton-Miller *et al* concluded that "management as opposed to mere treatment, demands as much attention to the clinical history as to the clinical examination and microbiological investigations of the most appropriate specimens." This view I heartily endorse; frequency and dysuria syndrome, whether in men or women, with a psychological basis has specific clinical features, which allow it to be distinguished from true infection.

I agree with Dr Maskell that most men with a diffuse perineal and genitourinary symptom complex usually consult their general practitioners for advice first. It was to them that my answer to the question on abacterial prostatitis was directed. I believe that positive evidence of prostatitis should be sought before the patient is labelled as having the condition, as management becomes extremely difficult once the patient believes that he has prostatitis. These, of course, are the very patients that are then referred to urologists. They have usually had treatment with various antibiotics for a variable length of time with absolutely no improvement in their symptom complex. Life would be easy if most of these men had even a fairly obscure infective aetiology to account for their symptoms, as appropriate treatment would then be simple. Unfortunately, this is almost invariably not the case, and the term "prostatodynia" has arisen to describe this large group of patients with symptoms suggesting prostatitis but in whom no evidence of an infective cause is detected.

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Should medical students go to South Africa?

SIR,—Perhaps a financial adviser should address himself to *materia non medica*, but as the son and brother of South African doctors and the fiancé of a British house officer, I feel able to venture an opinion on Ms Helen Gray's article about her South African elective (5 September, p 398) and Mr Tom Coffey's response (26 September, p 781).

Miss Gray should note that in visiting the Cape she was surrounded by South Africa's most liberal whites and among its least poverty stricken blacks. Her impressions must then be qualified by the knowledge that in the more rural areas of South