

one female infant the dilatation was due to vesicoureteric reflux rather than obstruction; other abnormalities were also present and at 12 months cot death occurred. Two other baby boys, one who had urethral valves and the other anterior urethral hypoplasia, are alive at 1 year and have normal plasma biochemistry, but both have severe additional defects—Down's syndrome and Noonan's syndrome. Another boy with moderate outflow obstruction (urethral valves) is otherwise normal and has plasma concentrations of urea and creatinine within normal limits after resection of the urethral valves. In the final case termination of pregnancy was undertaken before 20 weeks' gestation. Histological examination showed gross renal dysplasia.

As a result of our experience we have decided against intrauterine drainage. The outcome in these cases would not have been much influenced had we intervened in utero. Apart from difficulties in selecting for treatment fetuses who do not have other severe abnormalities, it is probable that in the cases with a fatal outcome the renal damage was already irreversible when the abnormality was evident on ultrasound scanning. Further research is certainly needed, but this should be limited to the few centres where clinical work is part of a wider programme of fetal surgery.

At the moment the main contribution of antenatal detection of urinary tract abnormalities seems to be to enable investigation and treatment to begin before infection supervenes in the obstructed urinary tract.

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### The state of the prisons

SIR,—Having worked as a part time medical officer in a local prison for nearly three years, I have found that the general population's lack of knowledge about life in prison (for both prisoners and prison officers) is shared by a surprising number of doctors.

Dr Smith rightly draws attention to the rapid turnover of prisoners, the high percentage with a psychiatric disorder (in particular epilepsy, addiction, subnormality, and personality disorder), and the small number of insufficiently trained hospital officers who are required to cope with both disciplinary and medical problems. This could well be a recipe for disaster, which is prevented (except in the few highly publicised cases), by the dedication of the officers and doctors.

We should not, however, be complacent. Prisoners with psychiatric problems are not receiving the standard of care that they have a right to expect. Too many remain in prison due to administrative difficulties when prison and local hospital doctors agree that they should be transferred to a psychiatric hospital. While the courts continue to impose custodial sentences at the present rate and the government avoids making the necessary money available, these problems are likely to continue and will probably escalate.

The solution lies in the more active changes suggested by Dr Smith. Firstly, nursing training for hospital officers should be longer and orientated towards psychiatry and, secondly, a closer cooperation and exchange

of experiences should be sought between medical staff in the National Health Service and those in the prison medical service.

I believe that these changes must be implemented now to avoid a further deterioration in the prison service's public image and to provide those in prison with the standard of medical care that they deserve.

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SIR,—Before I went to prison (I served seven days in Holloway as a peace protester in March 1983) I imagined that the worst thing would be the claustrophobic conditions of confinement. And indeed they are hard to endure: each cell, measuring eight paces by six paces, is shared by three women; there is an open lavatory, with no privacy, no facilities for the disposal of sanitary towels, and very little ventilation; women are locked in for as long as 20 hours a day if there is a shortage of staff.

This, however, was not the worst thing; nor was it the food, although that was inedibly salty and overcooked; nor was it the lack of exercise, although the only respite from confinement in tiny cells filled with tobacco smoke was 20 minutes spent walking round and round a yard each day; nor was it the mind numbing boredom, although the only activity provided was menial work such as putting paper hats in Christmas crackers or assembling toy cars.

The worst thing was to witness the progressive mental deterioration of women isolated from their families, anxious about the welfare of their children, dependent for news of them on the whim of a prison officer, who might or might not produce the correct form that has to be filled in before a prisoner can see a probation officer, who might or might not allow her access to a telephone. I observed that the stress of separation often produced acute anxiety for the first few days, followed by deepening depression. In the long term, many women sentenced to imprisonment of six months or more displayed an apparent indifference to the welfare of their children, whom they may see only for half an hour a month, if at all. Such indifference, feigned or real, is one way of dealing with the pain.

Dr Richard Smith is right to question whether prison has any success in rehabilitating women prisoners, and to ask (25 February, p 633) whether, "because it plucks them out of their communities and families and separates them from their children prison is more likely to aggravate the problems of both the women and their children."

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### Effect of health visitors working with elderly patients in general practice

SIR,—The important findings of Dr Norman J Vetter and others (4 February, p 369) of diminished mortality, increased provision of services, and some improvement in the quality of life in a group of old people visited by one health visitor but not by another prompts me to ask how standardised were the procedures practised by each? Furthermore, did the health visitors receive any special training for these visits? Health visitors' training is directed towards infants and young children

and may not have taken into consideration the detailed needs of the aged.

Williamson and others suggest that on the first visit to patients aged 70 and over health visitors should: (a) take a history of breathlessness, chronic cough and spit, dysuria and incontinence, falls, vomiting, diarrhoea, and pain; (b) scrutinise drugs being taken; (c) assess mental state and social need; and (d) conduct an examination of vision, hearing, dental health, leg oedema, pulse irregularity, and foot disorders, if possible obtaining a specimen of blood and urine.<sup>1</sup> Such a routine can be carried out in less than an hour, does not require the patient to undress, and will point to most of the remediable problems that can reasonably be discovered on a cost effective basis.

I hope that the findings of Dr Vetter and his colleagues will encourage general practitioners to persuade health visitors attached to their practices to spend at least one half day a week visiting the over 70s.

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<sup>1</sup> Williamson J, Lowther CP, Gray S. The use of health visitors in preventive geriatrics. *Gerontologica Clinica* 1966;6:362-8.

SIR,—I have found that in a suburban practice a health visitor attending a group of people over 65 over four years has caused them to consult their general practitioners less often (significant at the 10% level). The consultation rate did not fall in the first year, but it did thereafter, which may mean that the impact of the health visitor is cumulative. The study did not define exactly why the consultation rates fell, but I suggest that it was because the health visitor helped manage domestic problems and emotional problems resulting from social isolation and recent bereavement.

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### Measurement of serum amyloid A protein concentrations as test of renal allograft rejection

SIR,—The paper by Professor C P J Maury and others (4 February, p 360) provides evidence of the value of measuring the acute phase response in recipients of renal allografts. As their message is of immediate practical importance it may be useful to indicate to those who may wish to adopt this test that assay of serum amyloid A protein is by no means the most simple or straightforward way of assessing the acute phase response. Serum amyloid A protein is an apolipoprotein chiefly associated with high density lipoprotein, is difficult to isolate and purify, and is a very poor immunogen.<sup>1</sup> Its assay is difficult to standardise as the isolated protein is insoluble in physiological media. It is not acceptable to use purified amyloid A protein for calibration, as Professor Maury and colleagues did, as this peptide is a proteolytic cleavage product of serum amyloid A protein, is smaller, and is antigenically deficient with respect to serum amyloid A protein.<sup>1</sup> The company from which Professor Maury and colleagues obtained antiserum to amyloid A protein (Atlantic Antibodies, Scarborough, Maine,

USA) has no further supplies, nor does any other company sell this antiserum, and it is not clear when amyloid A antiserum will be available commercially.

In contrast, the measurement of serum C reactive protein concentration is easy and readily accessible. C reactive protein is the classical acute phase protein,<sup>2</sup> the circulating concentrations of which correlate extremely closely with those of serum amyloid A protein in all published studies<sup>1</sup> and which were shown as long ago as 1981 to provide the same information in renal allograft recipients as that now reported for serum amyloid A protein by Professor Maury and colleagues.<sup>3</sup> C reactive protein is easy to isolate and purify, potent antisera are readily available, assay by the whole range of immunochemical techniques is well established, and several excellent and relatively inexpensive methods are commercially available—for example, EMIT homogeneous enzyme immunoassay or fluoroimmunoassay from Syva Company, Palo Alto, California, USA; or rate immunonephelometry from Beckman Instruments Inc, Fullerton, California, USA. Both of these companies have subsidiaries in the United Kingdom and Europe. For routine monitoring of the acute phase response, which is extremely useful in the management of a wide range of different conditions<sup>1,4</sup> as well as in renal allografting, serial assays of serum C reactive protein are therefore the method of choice.

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<sup>1</sup> Pepys MB, Baltz ML. Acute phase proteins with special reference to C-reactive protein and related proteins (pentaxins) and serum amyloid A protein. *Adv Immunol* 1983;34:141-212.

<sup>2</sup> Pepys MB. C-reactive protein fifty years on. *Lancet* 1981;i:653-6.

<sup>3</sup> White J, Meyer E, Hardy MA. Prediction of onset and termination of renal allograft rejection by serum levels of C-reactive protein. *Transplant Proc* 1981;13:682-5.

<sup>4</sup> Hind CRK, Pepys MB. The role of serum C-reactive protein (CRP) measurement in clinical practice. *Internal Medicine for the Specialist* 1984;5:112-51.

### Metabolism of narcotics

SIR,—We were intrigued by the suggestion from Dr Henry McQuay and Dr Andrew Moore (21 January, p 237) that the kidney may play an important part in morphine metabolism as well as in excretion. We have since extracted the case records of patients admitted to this unit during the years 1981-3 who had biochemical evidence of impaired hepatic or renal function.

*Details of patients with biochemical evidence of impaired hepatic or renal function who had received morphine compared with details of all patients who had received morphine in 1982*

Category	No	M:F ratio	Median age (range)	Median four hourly dose of morphine (mg) (range)	Median time on morphine (days)	Median plasma AST (IU/l) (range)	Median plasma creatinine ( $\mu$ /l) (range)
All patients receiving morphine in 1982	246	0.9:1	62 (5-95)	20 (2.5- >200)	9	—	—
Patients with impaired hepatic function	25	0.4:1	53 (43-73)	20 (5-260)	24	82 (50-350)	—
Patients with impaired renal function*	14	1:1	60 (49-75)	7.5 (5-100)	11	—	232 (197-1394)
Patients with impaired renal function†	9	0.8:1	59 (49-73)	5 (5-100)	5	—	294 (311-1394)

AST = Aspartate transaminase.

\*Including five with impaired hepatic function.

†Excluding five patients with impaired hepatic function.

Conversion: SI to traditional units—Creatinine: 1  $\mu$ mol/l  $\approx$  0.01 mg/100 ml.

Patients were divided into three categories: (a) those with evidence of impaired hepatic function (excluding those with co-existent renal failure or pulmonary metastases); (b) those with evidence of impaired renal function with or without impaired hepatic function; (c) those with impaired renal function but without co-existent impaired hepatic function (a subset of b). Criteria of impaired function were a plasma aspartate transaminase activity or plasma creatinine concentration of more than four standard deviations above the mean ( $>50$  IU/l for aspartate transaminase;  $>180$   $\mu$ mol/l (2.0 mg/100 ml) for creatinine). The median dose of oral morphine sulphate solution received by each of the three groups every four hours was compared with the median dose for all patients receiving morphine in 1982 (n=246). This larger group was analysed using a micro-computer database system.<sup>1</sup> The table shows the results.

As is the standard practice, the dose of morphine had been optimised by titrating the dose upwards until the patient's pain was controlled. The finding that patients with impaired hepatic function received normal doses but that patients with impaired renal function were controlled on below average doses lends support to the suggestion that the kidney may play a major part in the conjugation of morphine. We recognise, however, that our data are open to several alternative interpretations.

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<sup>1</sup> Hanks GW, Thomas PJ. A microcomputer-based system for therapeutic audit and retrospective research in palliative care. *Med Inf (Lond)* 1982; 7:113-8.

### Mother care for children in hospital

SIR,—Dr Michael Ryan's USSR letter (4 February, p 381) attracted our attention at once as "Mother Care for Children in Hospital" is the name of the organisation that was the precursor of the National Association for the Welfare of Children in Hospital. The original organisation was founded in 1961 to encourage the implementation of government policy on the welfare of children in hospital, and our present name was taken from the 1959 Platt report.

Our recent survey shows that in England we are halfway there in ensuring that children in hospital have access to their parents,<sup>1</sup> but there is a desperate lack of accommodation

for the parents of young children who wish to stay in hospital. We have written to every region about access and accommodation and have the impression that our survey has surprised and shamed some hospitals into looking at their own practice at ward level.

Dr Ryan's reports of doctors in Russia who think "mothers in hospital are unauthorised persons who merely distract the staff with idle questions" mirror rather neatly comments reported to us from surgeons who exclude parents on operating day. The Nuffield Foundation has given us a grant to examine hospital policies concerning operating day, and we are holding conferences on the subject on 7 April at Devonshire Hall in Leeds and on 14 June at the King's Fund Centre. Young children need their parents' support and comfort on the day of operation.

In contrast, a survey of neonatal units conducted in December 1983 and January 1984 shows that there are very few restrictions on parents being with their babies in these units, but parents do not always share fully in the care and we shall be looking at the barriers to shared care in eight conferences during Special Care Baby Month (March 1984) and at the King's Fund Centre on 22 May 1984.

Once most hospital staff accept the principle of care being shared between parents and professionals we see our task to be to reduce the barriers to complete cooperation. The best British hospitals probably lead the Western world in this aspect of child care; in the Third World the separation of mother and child may not even have been contemplated.

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<sup>1</sup> Thornes R. Parental access and family facilities in children's wards in England. *Br Med J* 1983; 287:190-2.

### The WRVS and the elderly

SIR,—Dr Tony Smith's articles on the care of the elderly in Denmark and the Netherlands (8 October, p 1053; 14 January, p 127) underline the increasing problems of nursing the aged. In the United Kingdom poignant examples of the problems can be seen in nearly every adult ward—especially of the smaller hospitals. They are termed "social cases"—not fit to live alone and not ill enough to justify hospital treatment with its high attendant costs. Their growing numbers are the despair of the medical and administrative staff alike, and the problem is now really too big for the National Health Service and local authorities to cope with financially.

In recent correspondence with the chairman of the Women's Royal Voluntary Service I asked her what could be done about it. She replied that the WRVS would certainly like to extend its existing number of homes (24 residential and one full care nursing home), which provide places for 675 elderly people and are run as residential clubs, usually in properties given to them or purchased by the WRVS Trust. She also stated that its priority was to provide "extended care"—ideally care for those who are beyond what is provided in the clubs and which takes place in an extension to or in the grounds of the existing home.