Scottish audit of suicides provides useful data

EDITOR,—Steffan Davies and colleagues report on the difficulty in identifying people at risk of suicide in the years after an admission to a psychiatric hospital.¹ Of their cohort of 91 patients, none were found to have died by suicide in the following 16 years.

Despite their findings it is important not to underestimate the proportion of people dying by suicide who have had contact with inpatient psychiatric services. Using the Scottish linked dataset,² we have examined the inpatient psychiatric history of people recorded as dying by suicide in Scotland in 1991 and 1992 (812 men and 282 women). We excluded 15 people whose date of death was the same as their date of discharge and who may therefore have committed suicide as inpatients.

We found that 98 women and 152 men had been inpatients in psychiatric hospitals in Scotland at least once in the 10 years preceding their death. Fifty two women and 77 men had been psychiatric inpatients in the 12 months immediately before their death.

More detailed examination of the data may help to identify factors associated with death by suicide after discharge. In keeping with the findings of Goldacre *et al.*,³ we found that most former psychiatric inpatients who committed suicide did so in the year after discharge. The linked dataset has obvious potential as an audit tool and as a source of outcome measures for psychiatric services.

Although the linked dataset does not provide any information on people who have only outpatient contact with psychiatric services, evidently a larger proportion of men who commit suicide in Scotland than of women have no recent history of psychiatric treatment as an inpatient (χ^2 test, $P < 0.01$). With the increase in suicide⁴ and discharges for parasuicide⁵ among men in Scotland, detailed examination of the characteristics of men dying by suicide is required to identify other possible routes of intervention.

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Water birth and infection in babies

EDITOR,—J Rawal and colleagues' report of a case of infection in a baby born in a birthing tub¹ followed previous observations of contamination of birth pools.² We recently reviewed infection in the babies born to mothers who had used such a pool in labour.

From December 1991, 122 mothers used the pool in labour, of whom 41 delivered in the pool. Our policy is to swab the ears of all infants whose mothers have used the pool and record their respiratory rate for three hours after delivery.

Three of the 122 babies had positive ear swabs. Two of them were well with their mothers on the postnatal wards. The swabs grew group B streptococci and *Staphylococcus aureus*, and both babies were treated with antibiotics until further cultures were negative. The last baby presented at 10 days with greenish discharge from his ear. Initial ear swabs had grown *Pseudomonas aeruginosa* and *Escherichia coli*. He was treated with parenteral antibiotics for 48 hours followed by topical antibiotic ear drops. His recovery was unremarkable.

Five of the 122 infants were admitted to the special care baby unit with a raised respiratory rate or grunting. Four of the five had been delivered under water. All were treated with antibiotics, though in all swabs and blood cultures were negative. We have had one neonatal death from an unexplained birth asphyxia but no clinical evidence of hyperthermia.³

In this unit bacteriological surveillance of the birth pool continues. In addition to taking a sample of water after delivery, as described by Rawal and colleagues, we also take a sample for culture before the woman's immersion. This enables us to check that the bacteriological quality of the water in the pool is satisfactory and to allow the identification of any problems at an early stage. We also advise that when using a plumbed birth pool the taps are opened for five minutes each day. This will reduce the risk of contamination from water, which may remain both static and tepid in the dead leg if the pool has not been used for several days. We let water flow for two minutes before filling the pool. Cleaning and drying the pool after use are also important.

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High security for mentally disordered people

EDITOR,—Derek Chiswick highlights the numerous difficulties inherent in the provision of high security care for people with mental disorders.¹ He states that high security care is provided for those patients "who present a serious danger, usually to others, and who cannot be managed at a lower level of security." One inference that may be drawn from this statement is that patients' dangerousness to themselves may be a reason for admission to a special hospital. The Reed report states that this should be an exceptional occurrence, describing admission to high security hospitals as "for patients with severe mental disorders (including learning disabilities) who are liable seriously to endanger others or (in extreme cases) themselves."²

The report on complaints about Ashworth Hospital expressed concern that some patients were being admitted inappropriately to a special hospital and recommended that the Special Hospitals Service Authority should review whether its criteria for admission were being followed in practice.³ These criteria include among patients not generally considered to be suitable for admission those who require close observation to

prevent self injury, unless this is associated with a probability of violence to others.

The unique nature of the special hospitals provides care for patients who need maximum security. Can a high perimeter wall be justified to prevent self harm?

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Embryo and oocyte transfer in older women

EDITOR,—C J Redgment and colleagues raise the important issue of whether women over 40 are being penalised by the Human Fertilisation and Embryology Authority's restriction on the number of eggs that may be replaced during gamete intrafallopian transfer.¹ The same principle applies to the number of embryos transferred after in vitro fertilisation. It is a pity that the authors did not show the number of eggs transferred per woman or take account of diagnostic differences that may affect implantation, such as sperm dysfunction, in order to compare accurately the risks of multiple pregnancy before and after the regulatory restrictions were imposed.

We have studied implantation rates of embryos transferred to the uterus after in vitro fertilisation in a strictly comparable group of patients according to the woman's age. All first cycles of standardised treatment between July 1989 and June 1993 in couples with normal sperm function, normal ovulation, and a normal uterus were included. The table shows that implantation rates fell slightly with age up to 40, after which the rate halved. This effect was independent of the number of embryos available, from which up to three could be chosen for transfer. Women aged 40 and over had a significantly lower pregnancy rate per cycle and live baby rate (without any use of therapeutic reduction of pregnancy).

In our clinic we have always transferred a maximum of three (or, before August 1991, exceptionally four) embryos or eggs per cycle of in vitro fertilisation or gamete intrafallopian transfer. In our total experience of 1967 cycles of these procedures in women under 40 and 239 cycles in women of 40 and over we have achieved overall clinical pregnancy rates of 26% (n=511) and 16% (38) per egg collection in the respective age groups; the rates of twins, triplets, and quadruplets among pregnancies were 28%, 5%, and 1% respectively in women under 40 and 14%, 0%, and 0% in women aged 40 and over. More extensive and useful data would be available if the British national figures

Results of in vitro fertilisation related to number of embryos transferred and woman's age

	Age of woman (years)					P
	25-29	30-34	35-39	40-44	value	
No of cycles in which embryos were transferred	122	242	217	48		
Mean No of embryos transferred	2.7	2.8	2.8	2.5		
Clinical pregnancy rate (% of cycles)	34	28	29	15	0.01	
Livebirth rate (% of cycles)	30	23	25	8	<0.05	
Implantation rate (sacs as % of embryos)	17	15	14	6	<0.05	
Live baby rate (babies as % of embryos)	14	11	11	3	<0.01	