Consent for surgery for psychiatric patients

EDITOR,—Nick Kosky is right to be concerned when surgical teams ask him, as duty psychiatrist, to give consent for operative procedures on behalf of psychiatric patients detained under the Mental Health Act.[1] Although most patients who have been admitted on a section are perfectly capable of deciding for themselves, the referrals that Kosky mentions might have been justified had he instead been asked to advise about the patients' ability to give real consent. As Kosky points out, competence to consent can vary with the complexity of the factors that need to be taken into account, but, also, competence can change from day to day depending on the cause of the intellectual disability. In these circumstances how does a surgeon with skills appropriate to that trade decide if a patient's consent is valid?

In a paper on assessing patients' capacity to consent Appelbaum and Grisso warn that improperly depriving a patient of his or her rights to make decisions is a serious infringement of liberty.[2] Usually the evaluation of someone's competence presents no problem, but if doubt exists Appelbaum and Grisso favour formal analysis. They recommend that a third party assessor should be present throughout the interview during which the procedure is explained to the patient in order to understand what has been said and to observe the patient's responses to that information. Then, using questions specifically designed to show ability in four areas—to communicate a choice, to understand the relevant information, to appreciate the importance of the circumstances and their consequences, and to manipulate information rationally—the assessor should judge whether the patient's consent is real.

Once competence, or its absence, has been established, correct practice along the lines recommended by the NHS Management Executive may ensue.[3]

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2 Appelbaum PS, Grisso T. Assessing patients' capacity to consent to treatment. *N Engl J Med* 1988;**319**:1635-8.
3 NHS Management Executive. *A guide to consent for examination and treatment*. London: NHSME, 1990.

Population mixing and excess of childhood leukaemia

EDITOR,—Eve Roman and colleagues observed about 25 more cases of leukaemia and non-Hodgkin's lymphoma than would be expected among children aged 0-4 in West Berkshire and North Hampshire health districts in 1972-89.[1,2] We wish to draw attention to a study that offers an explanation for the excess.[3]

TABLE II—*Adjusted ratios of observed to expected cases of leukaemia and non-Hodgkin's lymphoma at ages 0-4 in groups of county districts by increases in population and commuting 1971-81.* Figures in parentheses are observed numbers of cases*

Quarters of relative increase in population	Quarters of increase in commuting: 1 (Lowest)	2	3	4 (Highest)
1 (Lowest)	1·00 (34)		0·70 (14)	1·01 (9)
2		1·12 (24)	1·37 (28)	0·96 (19)
3	1·22 (35)	0·94 (18)	0·91 (15)	1·12 (13)
4 (Highest)		1·12 (28)	0·90 (11)	1·75† (49)

*Four similar sized groups were formed after county districts were ranked by increase in commuting and increase in population.
†1·71 after exclusion of Reading ($p < 0·01$).

The incidence of childhood leukaemia can be increased by population mixing, consistent with an infective basis.[4,5] Contacts among people from different communities at work and in the course of travel also seem relevant. A high level of commuting (both in and out) of many towns is now increasingly common, and the daily number of people crossing towns' boundaries may equal their total population. The relevance of increases in commuting was tested in the only 28 towns in which accurate comparisons of workplace census data (1971 and 1981) are possible because their boundaries were not affected by the reorganisations of 1974.

After these 28 towns (now county districts) were ranked by the increase in commuting a significant trend in the incidence of leukaemia was found at ages 0-14 ($p < 0·05$) and a trend at ages 0-4 ($p = 0·055$) over 1972-85.[3] Among the 10 similar sized groups of county districts ranked by increase in commuting a significant increase ($p < 0·01$) was present (only) in group X, with the greatest increase in commuting; this group includes Reading, the highest increase of all. Reading lies entirely within the 50 wards in which the excess in West Berkshire was concentrated,[2] contributing 50% of their total population—more than any other county district. Reading, however, is not responsible for the excess in the highest commuting group, which persists after it is excluded (table I).

Reading is far from being the only part of the two health districts in the recent study to have experienced unusual increases in commuting. When the 402 county districts in England and Wales were ranked according to increase in commuting the above 50 wards were found to belong to county districts in the top 13% and also to the range of increase in commuting of group X in the table. These associations with an increase in commuting may be compounded by an increase in population, and in a combined analysis the only category to show a significant excess of leukaemia and non-Hodgkin's lymphoma was highest for each measure (table II). This may have relevance to the two districts studied by Roman and colleagues, which include so called "Silicon Valley," Basingstoke and Wokingham (both expanding), and the Earley housing development, one of the largest in the country. Indeed, the increases in population and commuting in the six main constituent county districts of these two health districts would place them in the extreme category in table II.

The population mixing hypothesis is concerned with changes in a community's levels of susceptible and infected subjects. Nevertheless, it seems plausible that children in families with a high level of personal contacts may be at greater risk. Certain occupations and workplaces and house moves are relevant. Perhaps Roman and colleagues could examine their data in the light of this.[1]

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1 Roman E, Watson A, Beral V, Buckle S, Bull D, Baker K, *et al.* Case-control study of leukaemia and non-Hodgkin's lymphoma among children aged 0-4 years living in West Berkshire and North Hampshire health districts. *BMJ* 1993;**306**:615-21. (6 March.)
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TABLE I—*Adjusted ratios of observed to expected cases of leukaemia and non-Hodgkin's lymphoma at ages 0-4 in groups of county districts by increase in commuting 1971-81†*

Tenth	County district	Observed: expected	Observed No
I (Lowest)	Liverpool	1·00	26
II	Wolverhampton, Southend	1·41	30
III	Brighton, Blackpool, Stoke	1·06	26
IV-VIII		1·03-1·24‡	
IX	Luton, Portsmouth, York, Bath	1·21	32
X (Highest)	Exeter, Ipswich, Lincoln, Gloucester, Reading	1·77**	48
(X	Excluding Reading	1·70*	34)

*$p < 0·05$, **$p < 0·01$ (corrected for multiple comparisons).
†After county districts were ranked by increase in commuting 10 groups of similar person years at 0-14 were formed.
‡None significant; groups banded together for reasons of space.

Epidemiology of endometriosis

EDITOR,—The study of M P Vessey and colleagues suggests that oral contraceptives temporarily suppress endometriosis.[1] An increased risk of ovarian endometriosis in women who had used contraceptives was also reported in a case-control study conducted in Italy.[2]

To offer further data on the issue we analysed data collected in a case-control study conducted in northern Italy. The general design has been described elsewhere.[3] This study does not include cases considered in the previous Italian study. Cases were 376 women (median age 32 years) with laparoscopically or laparotomically confirmed pelvic endometriosis. A total of 522 controls (median age 33 years) were interviewed. Of these, 32% had been admitted to hospital for traumatic conditions, 32% for non-traumatic orthopaedic disorders, 18% for surgical conditions (mostly abdominal, such as acute appendicitis or strangulated hernia), and 17% for other illnesses, such as ear, nose, throat, or dental disorders.

A total of 15 (4%) and 137 (36%) cases and 24 (5%) and 131 (25%) controls were, respectively, currently using and had formerly used oral contraceptives. The corresponding relative risks were 0·8 (95% confidence interval, 0·3 to 1·6) and 1·9 (1·4 to 2·6) (table). When the analysis considered separately cases of endometriosis with sterility, pelvic pain, or other conditions (pelvic masses or incidental diagnosis of endometriosis during surgery for other conditions, such as hysterectomy for fibroids), the estimated relative risks were 2·3 and 2·2, respectively, for current and former uses for women with sterility, 2·7 and 2·7 for those with pelvic pain, and 0·7 and 1·5 for women who underwent surgery for other reasons. No clear relation emerged between risk of endometriosis and duration of oral contraceptive use and recency and latency of use.

The general findings of this analysis confirm the evidence from Vessey and colleagues of an increased frequency of endometriosis in former users of oral

Multivariate relative risk (95% confidence interval) of pelvic endometriosis according to oral contraceptive use, northern Italy*

	Indication for diagnostic surgery			
	Sterility	Pelvic pain	Other†	Total series
Oral contraceptive use				
Never users	1·00 (n = 67)	1·00 (n = 25)	1·00 (n = 131)	1·00
Current users	2·3 (0·1 to 2·1) (n = 2)	2·7 (0·9 to 7·8) (n = 6)	0·7 (0·2 to 1·8) (n = 7)	0·8 (0·3 to 1·6)
Former users	2·2 (1·3 to 3·7) (n = 53)	2·7 (1·4 to 5·2) (n = 21)	1·5 (1·0 to 2·3) (n = 63)	1·9 (1·4 to 2·6)
Duration of use (years):				
< 3	2·1 (1·2 to 3·2) (n = 37)	2·4 (1·2 to 5·0) (n = 18)	1·6 (1.0 to 2·5) (n = 49)	1·9 (1·3 to 2·7)
⩾ 3	1·5 (0·7 to 3·1) (n = 12)	3·2 (1·3 to 7·7) (n = 9)	1.1 (0·6 to 1·9) (n = 21)	1·4 (0–9 to 2·2)
Time since last use (years):				
< 10	2·4 (1·4 to 4·0) (n = 46)	3·1 (1·6 to 6·2) (n = 18)	1·5 (1·0 to 2·4) (n = 42)	2·0 (1·4 to 2·9)
⩾ 10	1·3 (0·4 to 4·0) (n = 7)	0·7 (0·1 to 5·0) (n = 1)	1·6 (0·9 to 3·0) (n = 21)	1·5 (0·9 to 2·7)
Time since first use (years):				
< 15	1·9 (1·2 to 3·2) (n = 50)	2·8 (1·5 to 5·3) (n = 24)	1·4 (0·9 to 2·1) (n = 53)	1·7 (1·3 to 2·4)
⩾ 15	1·4 (0·3 to 5·7) (n = 4)	1·3 (0·2 to 10·0) (n = 1)	1·4 (0·7 to 3·0) (n = 13)	1·4 (0·7 to 2·8)

*Multivariate estimates adjusted for age, education, parity, and in turn the above indicators of oral contraceptive use.
†Including pelvic masses and incidental diagnosis.

contraceptives. Although the results for current users were compatible with a reduced risk, the estimate was not significant, possibly on account of small absolute numbers of cases. It is interesting to note that in our study an increased risk of endometriosis for former users was evident in women in whom diagnosis of the disease was an incidental finding—that is, in the group in which indication bias should have a minor role. Indication and diagnostic bias may, however, have different roles in different diagnostic subgroups, and it is therefore difficult to quantify their role.

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1 Vessey MP, Villard-Mackintosh L, Painter R. Epidemiology of endometriosis in women attending family planning clinics. *BMJ* 1993;**306**:182-4. (16 January.)
2 Parazzini F, La Vecchia C, Franceschi S, Negri E, Cecchetti G. Risk factors for endometrioid, mucinous and serous benign ovarian cysts. *Int J Epidemiol* 1989;**18**:108-12.
3 Candiani GB, Parazzini F, Danesino V, Gastaldi A, Ferraroni M. Reproductive and menstrual factors and risk of peritoneal and ovarian endometriosis. *Fertil Steril* 1991;**56**:230-4.

EDITOR,—M P Vessey and colleagues have shown that current use of oral contraception has a significant protective effect (relative risk 0·4) against endometriosis.[1] The relative risk in women who had stopped taking the pill 25-48 months previously compared with women who had never taken the pill was 1·8. This is inadequate evidence to propose a true worsening of the risk of endometriosis as a rebound effect after the pill is stopped. A more plausible explanation is selection bias: the women in this non-randomised cohort study who chose to take the pill were probably to some extent self selected or selected by their doctor for problems with their periods.

It has long been known that both bleeding and pain are improved by the combined pill; hence women with endometriosis or women likely to develop symptoms of the condition are likely to have been overrepresented in the cohort taking the pill. The endometriosis would generally not become manifest until pill taking stopped, thus producing a higher rate in former users than among those who had never used the pill. If this explanation is true, so that those taking the pill tended to be a higher risk group, the observed beneficial effect of current use of the pill in suppressing symptomatic endometriosis is all the more impressive.

Increased benefit with increasing total duration of use of the pill was not shown in the whole population, but this included both current and former users. Have the authors examined whether, among current users who have never taken a break from the method, increasing duration of use further improves the beneficial effect?

I agree with Eric J Thomas that the main indication for treatment is cyclical pelvic pain and dyspareunia.[2] Because endometriosis is chronic and relapsing, after initial medical or surgical treatment it must be suppressed long term. The combined pill has now been shown to be suitable for that purpose, long term.[1] I also agree that these data "support the hypothesis that the incidence of the disease is related to exposure to menstruation." I have, therefore, for some time recommended maintenance treatment with the "tricycle regimen" first introduced for a different purpose by Loudon *et al*, in which three or four packets of the pill (which should logically be a relatively oestrogen deficient and progestogen dominant formulation) are taken consecutively before each pill free interval.[3] Although pill bleeds are hormone withdrawal bleeds rather than menses, it seems logical to arrange that they are infrequent, occurring four or five rather than 13 times a year, to minimise bleeding into persistent endometrial deposits. A study in which this regimen was used might well show an even greater protective effect.

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Increasing patients' knowledge of secondary contraception

EDITOR,—D R Bromham and R S V Cartmill report the knowledge and use of secondary contraception among patients requesting termination of pregnancy at a fertility control unit.[1] They found that many patients had switched from using the pill to condoms for contraception, hoping to decrease any risk of contracting AIDS. A considerable number of the women said that a condom had leaked and some that one had split. The authors concluded that an increasing proportion of unplanned pregnancies were due to condom failure. They also found that many women were unaware of the availability of the postcoital pill—popularly and perhaps misleadingly called the morning after pill, although it is recommended for use up to 72 hours after any risk.

This exactly reflects my experience in seeing a large number of women who have sought a termination of pregnancy in Liverpool. I wrote to two large manufacturers of condoms, pointed out my findings, and suggested that it would be helpful if they included in their product's leaflet information about the postcoital pill, how to obtain it, and in what circumstances to use it. This was in July 1989, and by November I had received considered replies from both manufacturers.

One manufacturer wrote: "To incorporate such wording as you suggest within our instructions would imply that the product has a higher failure rate than is actually the case and cast doubt upon the advisability of its use." The other, having said that most "failures" (its inverted commas) are really related to the users and not the product, went on to say: "I find it hard to envisage how such advice could be given without causing potential damage to our own product's reputation." Manufacturers competing in the market may well have a problem, but surely a form of words could be agreed and, with government help, made mandatory for inclusion in all manufacturers' information sheets.

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Re-emergence of tuberculosis

EDITOR,—John M Watson's editorial and M Kennedy and colleagues' letter draw attention to the danger of multidrug resistant tuberculosis, particularly in HIV positive patients.[1 2] We have completed a bacteriological survey of tuberculosis in south east England from 1984 to 1991.[3] This survey included a study of the prevalence of drug resistance in different ethnic groups. The table summarises the findings, which may prove useful for comparative purposes in future surveys. The overall distribution of resistance was not signi-

Prevalence of tuberculosis due to drug resistant strains of Mycobacterium tuberculosis in south east England, 1984-91

	Ethnic origin of patients		
Type of resistance	European (n = 4594)	Indian subcontinent (n = 4099)	Other (n = 625)
1 Drug:			
Isoniazid	60	119	16
Streptomycin	30	72	21
Pyrazinamide	15	12	2
Rifampicin	3	5	1
Ethambutol	1		
2 Drugs:			
Isoniazid and streptomycin	16	83	22
Isoniazid and rifampicin	4	4	4
Other	1	7	
3 Drugs	1	28	1
4 Drugs	1	14	5
5 Drugs	1	3	1
6 Drugs		1	
Total (%) resistant	133 (2·9)	348 (8·5)	73* (11·7)

*35 African, 31 from Far East, seven other.