the characteristics of a practice population is to collect data about the actual populations of the practice—presumably by a survey. This will be inaccurate as it will be subject to sampling variation—that is, chance. Thus the prediction of the proportion of elderly people in a practice population of 10 000 in which the actual percentage is suspected to be 10% will be in the range 8-12% for 95% of the time if 796 people were sampled (EPIINFO version 5.01). Whether this is accurate enough is again a matter of judgment. Furthermore, this sample will be subject to non-response bias that is unquantifiable. To repeat this process across 73 practices, in the authors' case, would be a major undertaking. There is no gold standard in the derivation of data about populations, and safety lies in comparing data from a variety of sources. It is too early to dismiss linkage of census data to practice populations.

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Reducing number of postcodes that cannot be ascribed would increase validity of method

EDITOR,—Glen Scrivener and David C E F Lloyd conclude that allocating census data to general practice populations is not sufficiently accurate for the purposes of explaining variations in prescribing despite their finding correlation coefficients of up to 0.84 from two of their methods.¹ They acknowledge that perfect correlation is impossible in an ecological comparison. Nevertheless, the correlation coefficients might have been higher if the 11 710 patients (3.2%) whose postcode could not be matched had been included in the analysis. This proportion of postcodes that could not be ascribed is fairly high. We have developed a link between enumeration districts and general practices in West Glamorgan to study variation in use of hospitals as well as drug prescribing; only 1% of postcodes held on the West Glamorgan Family Health Services Authority's register cannot be matched on the Post Office address file (personal communication, Royal Mail address manager, Post Office). Local inquiry shows that many of the mismatches are due to keying errors when data are input and can be corrected.

Scrivener and Lloyd suggest that time and effort should be spent on collecting data at the level of individual patients. It is axiomatic that the benefits of collecting additional information should outweigh the costs. Unfortunately, unless very large samples are collected all that will happen is that one type of error (that due to the ecological fallacy) will be replaced by that due to the imprecision of estimates based on small sample size: a sample of around 3000 is required to be 95% confident of acquiring an estimate of $\pm 1\%$ around an expected rate of permanent sickness of about 8%. Apart from the logistic difficulties and cost of collecting such an amount of data in practices, the validity of the data might be questionable if prescribing budgets were to depend on the results.

While the correlation coefficients between census variables and practice populations are not perfect, in the absence of better indicators they are sufficiently high to be used in practice. In our county, estimates of practices' rates of long term limiting illness (based on enumeration district) and the Townsend index of deprivation explain a quarter of the rates of use of hospitals after adjustment for age (unpublished data). If such factors were not included in resource allocation

formulas there would be a substantial transfer of resources from the more deprived to the more affluent areas of our county. Whose interest would this serve?

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Fall in birth weight of third generation Asian infants

EDITOR,—S Dhawan reports that the birth weight of the infants of second generation Asian women in Bolton is significantly higher than that of the infants of first generation Asian women.¹ This increase was not found when a much larger sample of Asian women in Leicestershire was compared during 1991-3—in fact, the converse was found when data on Asian Muslim women were selected from the data.

A total of 4562 Asian women delivered a singleton liveborn infant in Leicestershire during 1991-3. The ethnic group, place of birth, religion, age, parity, and marital status of the mother and birth weight and gestational age of the infant were noted from computerised birth notification data. The woman's weight is not available from this source of data. The table shows the data for the women in Leicestershire in a similar format to that used by Dhawan; it compares the birth weights of the children of first generation and second generation Asian women by potential confounding factors (with the exception of maternal weight). This table shows that in Leicestershire there is no significant effect of maternal generation on the birth weight of the infants, although the potential confounding factors have a significant effect on birth weight as expected.

As Leicestershire has a different ethnic mix from that of Bolton, with only one third of the Asian births being to Muslim women, we looked at the

overall birth weights of singleton liveborn infants of first and second generation Muslim women. The unadjusted birth weights of the infants of second generation Asian Muslim women were on average 76 g lighter than those of their first generation counterparts. The lower parity and younger age of the second generation Muslim women could, However, have accounted for this difference. Nevertheless, our results suggest that it is not an increase in the birth weight of Asian infants that accounts for the reduction in perinatal mortality observed in Leicestershire over 1976-85.²

Further work is being carried out in this area to investigate the effects of generation on the birth weights of the infants of different Asian cultures and the trends in the birth weights of Asian infants over time.

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Treating temporarily incompetent patients

Competence cannot be determined by reasonableness of patient's decision

EDITOR,—Part of the recent discussion of the two case histories concerning the treatment of temporarily incompetent patients must be questioned.¹ As Petra Wilson suggests, the mental competence required by law for valid consent to or refusal of medical treatment is not clearly defined, but the judge in the case cited analysed the abilities required, which were to comprehend and retain information about treatment, to believe such information, and to weigh the information to arrive at a choice.² If these abilities are impaired by mental disorder or injury then capacity may be

Comparison of birth weights of singleton liveborn infants of first generation and second generation Asian women by potential confounding factors, Leicestershire, 1991-3

Factor	First generation women		Second generation women		Statistical analysis*
	Mean (SD) birth weight (g)	No of women	Mean (SD) birth weight (g)	No of women	
Overall	3044 (504)	3784	3022 (500)	778	$t=1.15, P=0.25$
Parity:					
0	3006 (505)	2460	2992 (515)	549	(a) $F=0.63, P=0.43$ (b) $F=12.74, P<0.0001$ (c) $F=0.01, P=0.99$
1	3110 (501)	1168	3091 (456)	220	
2	3139 (446)	142	3111 (426)	9	
3	3326 (363)	12		0	
4	2845 (290)	2		0	
Women's age (years):					
≤ 24	2980 (478)	1056	2998 (476)	485	(a) $F=0.38, P=0.54$ (b) $F=10.97, P<0.0001$ (c) $F=0.60, P=0.61$
25-29	3052 (492)	1362	3039 (517)	251	
30-34	3090 (518)	1008	3188 (633)	37	
≥ 35	3078 (558)	358	3186 (672)	5	
Marital status:					
Single	3020 (451)	161	3076 (512)	70	(a) $F=1.31, P=0.25$ (b) $F=0.01, P<0.90$ (c) $F=1.29, P=0.26$
Married	3045 (506)	3623	3016 (499)	708	
Gestational age (weeks):					
28-32	1523 (526)	39	1524 (569)	7	(a) $F=1.27, P=0.27$ (b) $F=487.8, P<0.0001$ (c) $F=0.4, P=0.70$
33-36	2365 (491)	205	2304 (455)	53	
37-40	3061 (437)	2983	3037 (414)	590	
41-42	3312 (433)	557	3329 (446)	128	
Overall	3060 (504)	1389	2984 (458)	260	$t=2.25, P<0.025$

*(a)=Main effect of group (first generation v second generation); (b)=main effect of factor; (c)=interaction group $\times$ factor.

lost, but the law makes an important qualification: a mentally competent person is entitled to make decisions for irrational reasons.³ The law does not permit assessment of competence by examination of the reasonableness of the decision, contrary to Grant Gillett's ethical position.

Contrary to Zbigniew Szawarski's suggestion of a presumption of incompetence, the law presumes that every adult has mental capacity unless that presumption is rebutted. Any medical practice to the contrary would potentially undermine patients' firmly entrenched right to physical autonomy.

D W Yates seems to suggest that an authority to treat may arise from a patient being brought in by a relative. While this might be a pragmatic solution, it is ruled out by court decisions holding that, in the case of adult patients, no relative has the power to consent to or to refuse medical treatment on their behalf, although medical practice may require that a relative is consulted.⁴

In the case of an unconscious patient, in the absence of convincing evidence of a valid advance directive refusing treatment, doctors are free to provide whatever treatment they consider in their clinical judgment to be in the patient's best interests: any treatment necessary to save the patient's life is likely to come into that category. In the case of an uncooperative conscious patient the position is more difficult. The patient's competence must be assessed, and only if the doctors are satisfied that the patient lacks competence are they free to provide treatment against the patient's will in what they consider to be his or her best interests. This may include detaining the patient if that is in accordance with proper medical practice, but it is doubtful whether in such circumstances the police have any powers over and above those of the private citizen in cases in which the Mental Health Act does not apply.

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1 Hodgkinson DW, Gray AJ, Dalal B, Wilson P, Szawarski Z, Sensky T, *et al.* Doctors' legal position in treating temporarily incompetent patients. *BMJ* 1995;311:115-8. (8 July.)

2 In re C [1994] 1 WLR 290.

3 Sidaway [1985] AC 871, 905, 905.

4 In re F [1990] AC 1, 78.

No reasonable doubt that patient was incompetent

EDITOR,—A recent ethical debate centres on two patients who had refused treatment in an accident and emergency department.¹ One patient was admitted unconscious after an overdose of co-dydramol and was awakened by a dose of naloxone but then refused further treatment. He was, however, treated when the effects of the naloxone wore off and unconsciousness returned. The ethics and medical commentators agreed with this course of action, but the legal expert thought that the action was "difficult to justify." This conclusion cannot go unchallenged.

The right to refuse treatment was considered in the case of Re T, when Lord Donaldson said, "A patient's interest consists of his right to self determination. Society's interest is in upholding the concept that all human life is sacred and should be preserved if possible. In a situation where these two interests conflict, the right of the individual is paramount. But where there is doubt, the doubt falls to be resolved in favour of the preservation of life."²

Consider the patient discussed in the article. His system contained enough co-dydramol to cause unconsciousness. He was artificially stimulated into temporary wakefulness. Can anyone, doctor or layperson, say that there was not doubt about his capacity to understand the nature, purpose, and effect of the proffered treatment? If there was doubt then his life should have been preserved. It is doctors' duty to preserve the life of those unable

to give consent (see Lord Brandon's speech in the case of F v West Berkshire Health Authority³).

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2 Re T (adult: refusal of medical treatment) [1992] 9 BMLR 46.

3 F v West Berkshire HA [1989] 4 BMLR 1 at 8.

General practitioners can help with patients who take their own discharge

EDITOR,—Patients who insist on taking their own discharge against medical advice when under the influence of alcohol, drugs, or head injury present a serious problem for accident and emergency staff, particularly if there is no responsible adult to care for the patients.¹ I have found that in cases in which there is no serious concern about immediate deterioration and the patient has been allowed to go home, general practitioners are usually willing to pay a home visit a few hours later to reassess the patient if they are contacted by the accident and emergency department. The hospital should not abdicate its responsibility for those patients who must be detained for their own good, but back up in the community can help to avoid unpleasant confrontations with other patients.

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Diabetes and breast feeding

Support is available for diabetic mothers

EDITOR,—D F O'Sullivan raises an important point about information about breast feeding for diabetic mothers.¹ Women with diabetes may experience particular difficulties in establishing breast feeding owing to early separation from their babies, delays in the initiation of breast feeding, increased use of supplements, and the high rate of caesarean section.² Together with rapid changes in insulin requirements in the early days this means that appropriate support and information are critical.

All women with diabetes and midwives caring for them should be made aware of the evidence that breast feeding for 9-12 months reduces the risk of diabetes developing in children with a family history of the condition,³ helps to improve glucose and lipid metabolism, and promotes postpartum weight loss.⁴ Women with well controlled diabetes produce breast milk with a normal composition of macronutrients and fatty acids⁵; this is the best food for their babies.

The National Childbirth Trust's counsellors on breast feeding are trained to provide information and support for any breast feeding mother. The trust's breast feeding special situations register includes details of mothers with diabetes who are willing to talk about their experiences with other parents. The register can be contacted on 01332 702386.

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Carbohydrate requirements are increased

EDITOR,—D F O'Sullivan found that advice on breast feeding for his diabetic wife was hard to come by.¹ This is surprising, since as long ago as 1983 Dodderidge and Wichelow conducted a survey at the diabetic pregnancy unit at King's College Hospital and found that, with good antenatal advice and encouragement, three quarters of mothers were breast feeding at six weeks.²

Two important factors emerged from this study: firstly, as might be expected, babies who were encouraged to suckle within 12 hours of delivery were more likely to be breast fed successfully than those put to the breast after this time, and, secondly, the mother's dietary carbohydrate allowance should be increased by 50 g as a contribution to the extra 2.5 MJ needed daily during lactation. This increase is best taken as an extra pint of milk daily and two extra portions of carbohydrate taken at tea or dinner and as a bedtime snack, when the mother is likely to be hungry, rather than earlier in the day. Insulin requirements are not likely to alter during lactation. Mrs O'Sullivan's experience of hypoglycaemia during lactation was probably the result of an inadequate increase in carbohydrate intake and was similar to the experience of the mothers at King's College Hospital, who also reported a decrease in their supply of milk if they had low blood glucose concentrations.

It is disappointing that O'Sullivan got no help from the British Diabetic Association since its pamphlet *Pregnancy, Diabetes and You* contains an excellent section on breast feeding and diabetes.³

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Ambulance staff exercise discretion over resuscitation decision

EDITOR,—Andrew Marsden and colleagues are to be commended on their courage in tackling the complicated and controversial area of "futile" resuscitation in cases of out of hospital cardiac arrest.¹ At the time of writing they would have been unaware of recently published data from South Glamorgan which suggests that in practice ambulance staff already exercise some degree of discretion.² In that data set, of 370 patients in whom no resuscitation attempt was made, 274 (74%) were clearly inappropriate for resuscitation ("rigor mortis," "already certified dead," "terminal cancer") and in 96 cases (26%) the reasons were less clear cut. "Unknown," "police or relatives' instructions," or "severe injury" would not immediately seem to justify no attempt. Ambulance staff are currently placed in the difficult