samples of serum from patients who develop neutropenia while being treated with mianserin or other antidepressants for further study.

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[1] Inman WH. *Br Med J* 1977;i:1500-5.
[2] Boggs DR. In: Beeson PB, McDermott W, Wyngaarden JB, eds. *Textbook of Medicine*. 15th ed. Philadelphia: Saunders, 1979:1808.

SIR,—Dr Charlotte E Page reported an association between agranulocytosis and mianserin (26 June, p 1912). Between April 1979, when the drug was first marketed in Australia, and June 1982 the Adverse Drug Reactions Advisory Committee has received 10 Australian reports associating mianserin with white blood cell disorders. Details of the first four reports were published by the Committee.[1]

Six reports described marked neutropenia and four reports described absolute agranulocytosis. All patients recovered when mianserin and in some instances other drugs were ceased. In four of the 10 reports causative roles for other drugs taken concurrently could not be excluded. Having regard to Australia's smaller population (approximately 15 million people), the committee has some concern that these reactions may occur more frequently than is suggested by the receipt of 16 reports by the United Kingdom Committee on Safety of Medicines in nearly eight years.

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Secretary
Adverse Drug Reactions Advisory Committee

Canberra,
Australia

[1] Adverse Drug Reactions Advisory Committee. *Med J Aust* 1980;ii:673-4.

**We have received other reports of mianserin-induced agranulocytosis, and we have asked the authors to forward them to the Committee on Safety of Medicines.—ED, *BMJ*.

Distributions of birth weight in seven Dublin maternity units

SIR,—Dr Valerie Dowding's conclusion that social class differences in birth weight are due to differences in attitudes, customs, and nutrition between socioeconomic groups and between areas is quite unjustified by her evidence (26 June, p 1901). The conclusion is tempting, its happy implication being that if only the lower socioeconomic groups were given more support and advice then social class differences in birth weight would disappear. The results of the 1958 British Perinatal Mortality Survey, however, showed that among women whose husbands were employed (Dr Dowding's socioeconomic groups I to VI) all of the social class differences in mean birth weight could be accounted for by differences in maternal height, parity, the incidence of pre-eclampsia, and smoking.[1] A recent study has also shown that the association between social class and the incidence of small-for-gestational-age babies is considerably weakened by allowing for class differences in smoking, hypertension, maternal age, and height.[2]

If these findings apply to Ireland as well, then although some reduction in birth weight differences might be brought about by behavioural changes (especially by reducing the incidence of smoking among the lower socioeconomic groups), that part of the birth weight gradient attributable to differences in maternal height would be impervious to social, behavioural, or nutritional changes during pregnancy.

It is relevant to point out here that the reasons for class differences in maternal height are not clear; but Illsley[3] has argued convincingly that one factor is likely to be the selective movement, through marriage, of shorter women into the lower socioeconomic groups and vice versa. If this continues to occur, then some birthweight differences between socioeconomic groups are here to stay.

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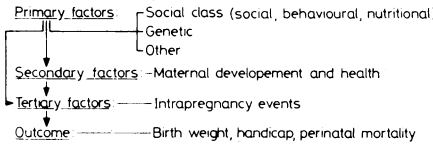
[1] Butler NR, Alberman ED, eds. *Perinatal Problems. The Second Report of the 1958 British Perinatal Mortality Survey*. Edinburgh and London: Livingstone, 1969:54.
[2] Ounsted M, Scott A. *Early Hum Dev* 1982;**6**:83-9.
[3] Illsley R. *Professional or public health? Sociology in Health and Medicine*. London: The Nuffield Provincial Hospitals Trust, 1980:20.

**We sent this letter to Dr Dowding, who replies below.—ED, *BMJ*.

SIR,—In reply to Mrs Patricia Yudkin's first point, my suggestion, not conclusion, related to the differences in *steepness* of the socioeconomic gradients in birth weight distribution seen between the hospitals. No suggestion was offered as to the cause of the socioeconomic gradient *per se*. If, however, I may be permitted to take up Mrs Yudkin's argument: the papers she cites by Bulter and Alberman and by Ounsted and Scott are two among many involving multivariate analysis in the search for predictors or causes (sometimes confused) of perinatal mortality or low birth weight. Both reach the not uncommon conclusion that "controlling out" of a suitable selection of factors will reduce or eliminate the seemingly strong social class effect. The selection of variables, however, varies from paper to paper: Miller *et al*[1] found the use of certain drugs, low weight gain, refraining from antenatal care, as well as smoking, together accounted for a major part of the social class effect on incidence of low birth weight.

Who was right? Much of the trouble stems from the fact that we are dealing with variables many of which are strongly, often causally, related to one another. For instance, maternal height results mainly from genetic factors and nutrition in childhood. Low birth weight might be said to result from maternal height or from a combination of childhood nutrition and genetic factors. Factors influencing a baby's weight act sequentially from the time of the mother's own conception or even before it. Some early events predispose to others occurring later so that a causal as well as temporal hierarchy exists among these factors (fig).

Factors occurring nearer to outcome may be expected to provide statistically better predictions. What is surprising is that the primary soioeconomic factor, so imprecisely measured, shows such a strong correlation with final outcome.



Relation of primary, secondary, and tertiary factors influencing a baby's birth weight and eventual outcome.

Illsley, who is cited by Mrs Yudkin, has noted that: "For many medical scientists [social] class is an inconvenient contaminant to be 'controlled out' in order that biological relationships may be more purely identified." "Correction" of the primary factor of social class for secondary and tertiary factors can be useful in revealing some of the avenues through which it may act but does not detract from its significance. Many of these avenues, some less obvious than maternal height, are indeed not amenable to intervention during pregnancy and must be tackled long before it.

Some small social class gradient probably is inevitable as genetic factors affecting a woman's mental and physical health will influence the social class (as classified by the Registrar General) in which she finds herself. Reduction in the steepness of gradient should be possible, as is perhaps witnessed by the small differences evident even between communities within Dublin. Social classes I and II here are returning birth weight and perinatal mortality figures comparable with the much envied results from Norway and Sweden. Perhaps the key to the achievement of these countries lies in their success in eliminating the social class gradient?

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[1] Miller HC, Hassanein K, Chin TDY, Hensleigh P. *J Pediatr* 1976;**89**:638-43.

Death by a thousand cuts

SIR,—I was interested to read the letter from Professor C Chantler (24 July, p 288) about the problems in paediatric services south of the Thames since a similar situation exists in central and east London. I have referred several children with severe burns to the unit at Guy's Hospital, having been told that there are inadequate arrangements for their treatment at Queen Elizabeth Hospital, Hackney Road, and at the Hospital for Sick Children, Great Ormond Street. Where are they to go now? For some time we have been trying to limit the number of children being "specialed," and now we are under considerable pressure to limit the number of children admitted for assisted ventilation.

Having worked in various parts of the country, I would best describe the facilities for the intensive care of older children in London as lamentable, being worse than in most major provincial cities. Right now we should be improving arrangements for paediatric intensive care in London, and it is a disgrace that the already inadequate facilities