



Fig 1—Standard steroid treatment warning card (left) compared with Chelsea and Westminster Hospital's warning on chickenpox for all patients receiving steroid treatment (right).

About one in seven patients were unable to give details of the condition for which they had been prescribed steroids. Over a third of the patients had received their first course of oral steroids during the survey period. Of the 66 patients who had been treated previously with steroids, 45 (67%) carried a steroid card; this included 14 patients who had been treated for less than one month, 20 for one to six months, and 32 for more than six months. Previous chickenpox was acknowledged in 75 and denied in 21; six of the 102 patients surveyed were uncertain. Doctors' instructions on not stopping treatment suddenly was recalled by 60 patients, and 63 acknowledged being given advice on potential side effects of steroids. Only 24 confirmed that the doctor had specifically asked about chickenpox and only 15 had been advised about chickenpox in association with their treatment. All 27 patients who recalled no previous chickenpox (or were uncertain of it) had received no specific information from their doctor at the time of the steroid prescription about the potential hazards of chickenpox.

Comment

This survey highlights a need to update steroid cards for the benefit of both patients and prescribing doctors.

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Suicide and deprivation in Scotland

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In Scotland the analysis of deaths in small geographical areas showed an association between suicide rates and economic deprivation.¹ This suggested that the recent increase in rates among young people has been greatest in deprived areas. Because of continuing concerns about rising suicide rates among young men I investigated the association with deprivation further.

Subjects, methods, and results

The General Register Office for Scotland provided data on all deaths by suicide (codes E950-959 in the revision of the *International Classification of Diseases*) and deaths undetermined whether accidentally or purposely inflicted (codes E980-E989) which had occurred among Scottish residents between 1981 and 1993. Undetermined deaths were considered to be suicide, and death rates were standardised to the World Health Organisation's European population. I investigated the associations with deprivation by using

Steroid cards were designed in 1961 by the Department of Health and to our knowledge have not been modified since their introduction. Distribution is through the Royal Pharmaceutical Society of Great Britain. The cards do not give specific warnings about the hazards of chickenpox with steroid treatment. Although most of the survey patients who had previously been treated with steroids carried a steroid card, only half could recall of their doctor's advice on side effects. Even though the true prevalence of immunity to varicella in patients who are uncertain of previous chickenpox infection may be high,² there is a clear risk for those who do not have antibodies to varicella.^{1,2} The universal omission of advice regarding exposure to chickenpox in those patients within the present survey who had no recall of having had chickenpox reinforces the need for written instructions regarding potential severe adverse reactions with steroids.^{3,4}

Patient information leaflets detailing drug precautions have been included by the manufacturers in only a limited number of steroid preparations but are due to be included with all steroid preparations as part of the Medicines Control Agency's patient pack initiative. As with other drug safety warnings, dated amendments should be made regularly if the steroid card is to have clinical relevance, particularly as it is reproduced in each edition of the *British National Formulary*. Our hospital now issues a separate written warning regarding chickenpox with all prescriptions for corticosteroids.

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1 Dowell SF, Breese JS. Severe varicella associated with steroid use. *Paediatrics* 1993;92:223-8.

2 Rice RB, Simmons K, Carr R, Banatvala J. Near fatal chickenpox during prednisolone treatment. *BMJ* 1994;309:1069-70.

3 Department of Health. *Corticosteroids and varicella-zoster virus*. CMO's update 2. London: DoH, 1994.

4 Severe chickenpox associated with systemic corticosteroids. *Current problems in Pharmacovigilance*, Vol 20. London: Committee on Safety of Medicines, 1994.

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Carstairs deprivation scores to group postcode sectors into three groups described as affluent, average, and deprived.² The three categories included about 20%, 60%, and 20% of the Scottish population.

Between 1981-3 and 1991-3 suicide rates among men aged 15-29 increased by 66% (table 1), but the rate among those aged 30 showed little change. Rates among young women also increased, but in those aged 30 or more the rate fell by 28%. For men and women and in both age groups there was a gradient in suicide rates across the deprivation categories, with lower rates in more affluent areas. Suicide rates for men and women aged 15-29 rose in all categories, but this rise was greatest in deprived areas. By 1991-3 suicide rates in young men and women living in deprived areas were about twice the rates of those living in affluent areas.

When I examined the method of committing suicide, rates in deprived areas were higher for each method, with the exception of the use of car exhausts. Among men in deprived areas the greatest increase occurred in rates of self poisoning and hanging. In contrast, in affluent areas the largest rise occurred in the use of car exhaust fumes.

Comment

Suicide may be characterised as the result of an inability to cope with severe psychological stress and

Table 1—Suicide rates* per 100 000 population by sex, age, deprivation category, method of suicide, and year. Values in parentheses are numbers of deaths

| | Year | Deprivation category | | | |
|---------------------------------------|---------------------|--------------------------|--------------------------|--------------------------|----------------------------|
| | | Affluent | Average | Deprived | All |
| Men (all methods of suicide) | | | | | |
| Age (years): | | | | | |
| 15-29 | { 1981-3 1991-3 | 14.1 (43) 20.4 (67) | 17.1 (177) 25.4 (276) | 23.0 (84) 48.7 (193) | 17.8 (304) 29.6 (536) |
| ≥30 | { 1981-3 1991-3† | 22.6 (171) 21.5 (187) | 26.5 (619) 27.2 (681) | 36.4 (264) 39.8 (309) | 27.5 (1054) 28.3 (1179) |
| Women (all methods of suicide) | | | | | |
| Age (years): | | | | | |
| 15-29 | { 1981-3 1991-3 | 2.7 (8) 6.8 (21) | 4.2 (42) 6.3 (21) | 6.8 (23) 13.2 (53) | 4.4 (73) 8.0 (139) |
| ≥30 | { 1981-3 1991-3 | 12.2 (116) 8.0 (76) | 14.0 (382) 10.3 (295) | 16.8 (147) 12.5 (113) | 14.1 (645) 10.2 (484) |
| Men aged ≥15 | | | | | |
| Method of suicide: | | | | | |
| Poisoning by solids and liquids | { 1981-3 1991-3 | 5.3 (54) 3.2 (39) | 6.1 (204) 7.0 (256) | 10.8 (112) 16.0 (198) | 6.8 (370) 8.1 (493) |
| Poisoning by gases‡ | { 1981-3 1991-3 | 2.5 (28) 5.3 (65) | 2.9 (94) 5.1 (187) | 2.3 (26) 3.4 (39) | 2.7 (148) 4.8 (291) |
| Hanging and suffocation | { 1981-3 1991-3 | 3.8 (38) 5.2 (64) | 6.0 (200) 6.2 (220) | 6.7 (74) 10.0 (119) | 5.7 (312) 6.7 (403) |
| Other | { 1981-3 1991-3† | 8.8 (94) 7.3 (86) | 9.1 (298) 8.4 (294) | 13.1 (136) 12.8 (146) | 9.8 (528) 8.9 (528) |
| Women aged ≥15 | | | | | |
| Method of suicide: | | | | | |
| Poisoning by solids and liquids | { 1981-3 1991-3 | 5.3 (66) 3.4 (43) | 5.9 (217) 4.7 (182) | 8.0 (95) 7.9 (107) | 6.2 (378) 5.1 (332) |
| Poisoning by gases‡ | { 1981-3 1991-3 | 0.6 (8) 0.5 (7) | 0.1 (3) 0.6 (25) | 0 0.3 (4) | 0.2 (11) 0.5 (36) |
| Hanging and suffocation | { 1981-3 1991-3 | 0.7 (9) 1.2 (16) | 1.5 (53) 1.1 (40) | 1.4 (16) 1.4 (18) | 1.3 (78) 1.2 (74) |
| Other | 1981-3 | 3.4 (41) | 4.2 (151) | 5.1 (59) | 4.2 (251) |

*Based on 1981 and 1991 censuses.

†Deprivation category unknown in two cases.

‡Car exhaust fumes and other non-domestic gas.

rising rates as an increasing number of people experiencing such stress. To explain the increases in Scotland in the past decade, changes in the wide range of influences associated with an increased risk of suicide and people's different exposure to these influences

must be taken into account.^{3,4} The fact that the greatest rates of increase have occurred among deprived young men and women is clearly important.

There was a significant increase in deaths from car exhaust fumes during the 1980s, particularly in affluent areas, which suggests increased access to the method and knowledge of its effectiveness. Compulsory emission controls are clearly needed.

Although suicide rates are dependent on the availability and effectiveness of the method chosen, they are clearly an indication of the prevalence of considerable distress. Increasing rates may be the result of a more general experience of social malaise. Some part of the increase may reflect fundamental changes in social structure—for example, security of employment, divorce, and homelessness. More direct effects might be changes in mental health services and the consequence of drug and alcohol misuse and of criminal activity. However, suicide is a fairly rare event and its relation to the population at risk cannot easily be estimated.

Educating general practitioners to recognise depression, restricting the availability of drugs used for self poisoning, and modifying car exhaust systems might reduce the numbers of deaths by suicide. Against the background of an association with socio-economic deprivation,⁵ however, these measures will not reduce the number of people with a suicidal motivation.

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Cohort study of coffee intake and death from coronary heart disease over 12 years

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In our previous study we found that coffee intake was related to death from coronary heart disease and that coffee had an effect that was additional to increasing cholesterol concentrations.¹ Recent meta-analyses of the effect of coffee on myocardial infarction and death from coronary heart disease showed great heterogeneity among the cohort studies.^{2,3}

We report the results of a further six years of follow up in our cohort of 38 500 men and women who were aged 35-56 at screening, with a reanalysis according to the two periods of follow up.

Subjects, methods, and results

The study population is described in our previous study.¹ Participants reported that they had no history

of cardiovascular disease, diabetes, stroke, hypertension, angina, or intermittent claudication. Follow up started at screening in 1977-82, when data on coffee drinking were obtained from a self administered questionnaire, and ended on 31 December 1992 (mean follow up 12.1 years). The outcome was coronary death according to the ninth revision of the *International Classification of Diseases* (ICD-9) (codes 410-413, 414.0, 414.1, 414.3, and 414.9), including sudden death of unknown cause (codes 798.1-798.2). The response rate was 83%. Data were stratified by sex and analysed by Cox's proportional hazards regression.

The coefficient for the risk of coronary death with coffee drinking during the first six years of follow up was twice that in the second six years (table 1). After six years an increased risk was found only in subjects who drank nine cups or more a day. When total cholesterol concentration was included as a covariate the coefficient for coffee drinking became 0.158 for the first six years of follow up, 0.051 for the second six years, and 0.083 for the whole follow up.

Analysis of follow up for 11 years in each county showed the strongest relation in Oppland, as in our previous study.¹ However, when the first six years of follow up was excluded the relation was much weaker in all counties.