Our relapse rate is similar to that in a trial of nicotine patches (37% between years 1 and 3)[3] and in a study using supportive counselling and nicotine gum for 5 years (40% between years 1 and 5).[4] High relapse rates after 1 year are also common in those not attending for treatment. A large general population survey estimated a relapse rate of 35% from non-validated self reports of the duration of abstinence.[5]

Success rates after 1 year or less of follow up substantially overestimate lifelong cessation after a single treatment episode.

Contributors: MAHR, GS, and JAS designed the original study, which GS conducted. JAS and GS designed the long term follow up phase, which GS conducted. JAS analysed the data and wrote the text of the paper. JAS and GS will act as guarantors for the paper.

Funding: Medical Research Council.
Conflict of interest: None.

1 Silagy C, Mant D, Fowler G, Lodge M. Meta-analysis on efficacy of nicotine replacement therapies in smoking cessation. *Lancet* 1994;343:139-42.
2 Sutherland G, Stapleton JA, Russell MAH, Jarvis MJ, Hajek P, Belcher M, et al. Randomised controlled trial of nasal nicotine spray in smoking cessation. *Lancet* 1992;340:324-9.
3 Mikkelsen KL, Tønnesen P, Nørregaard J. Three-year outcome of two-and three-year sustained abstainers from a smoking cessation study with nicotine patches. *J Smok Rel Dis* 1994;5:95-100.
4 Anthonisen NR, Connett JE, Kiley JP, Altose MD, Bailey WC, Buist AS, et al. Effects of smoking intervention and the use of an inhaled anticholinergic bronchodilator on the rate of decline of FEV_1. *JAMA* 1994;272:1497-505.
5 US Department of Health and Human Services. Results from the NHANES-I population survey. In: *The health benefits of smoking cessation: a report of the surgeon general*. Washington, DC: DHHS, 1990. (Publication No CDC 90-8416.)

(Accepted 8 July 1997)

Management of deliberate self poisoning in adults in four teaching hospitals: descriptive study

Navneet Kapur, Allan House, Francis Creed, Eleanor Feldman, Trevor Friedman, Elspeth Guthrie

Deliberate self poisoning accounts for 100 000 hospital admissions in England and Wales every year, and its incidence is increasing.[1] One per cent of patients kill themselves in the year following attendance.[2] Good services to manage deliberate self poisoning in general hospitals might therefore help to achieve the targets set out by the Health of the Nation strategy to reduce suicide rates. Existing services have not been planned coherently; the care provided by hospitals varying greatly, even in the same region.[3] We assessed the management of self poisoning in four teaching hospitals in England by using standardised methods of notification.

Subjects, methods, and results

We prospectively identified all patients over 16 years of age who attended four teaching hospitals in Leeds, Leicester, Manchester, and Nottingham for deliberate self poisoning during 4 weeks (November to December 1996). We obtained data by examining computerised databases on wards and in the accident and emergency department, referral ledgers, accident and emergency notes, and copies of specialist assessments of deliberate self poisoning. We checked all inpatient data retrospectively against information on admission and discharge for deliberate self poisoning that we obtained from the patient administration system in each hospital. We collected demographic details of patients, along with details of substance dependence, previous overdoses, and contact with psychiatric services. We also recorded information on the management of the current episode of self poisoning.

During the study period 458 patients accounted for 477 hospital attendances for deliberate self poisoning; 223 (49%) of these were women. The mean age of the patients was 30.9 years (SD 11.8 years); 65 (14%) were dependent on alcohol or drugs, 177 (39%) had taken a previous overdose, and 119 (26%) were in contact with psychiatric services. These percentages and the substances ingested were similar across study centres. By contrast, there were striking variations in the management of episodes between study centres, with a fourfold difference in discharge rates from accident and emergency departments, and almost a twofold difference in the proportion of subjects receiving a specialist psychosocial assessment (table). In 220 out of 477 hospital attendances (46%) the patient had no psychosocial assessment at any time during their hospital contact.

Comment

The average rate of patients with self poisoning presenting to hospital services in this study was 310 per 100 000 population per year, which suggests that deliberate self poisoning accounts for 170 000 hospital attendances in the United Kingdom annually. Yet services for this important problem remain in disarray. Striking variations in clinical practice were not accounted for by differences in patients' characteristics. We also discovered that, notwithstanding guidelines issued by the Department of Health,[4] almost half of the patients in this study did not receive a specialist psychosocial assessment.

Our findings may reflect a high risk approach to intervention or a lack of consensus on the psychiatric management of self poisoning.[5] We believe they probably reflect the low medical and psychiatric priority given to patients who have taken an overdose. A reduced number of beds means that medical staff are reluctant to admit patients who are judged to be at low physical risk and often seen as difficult and unrewarding. Meanwhile, psychiatric services are increasingly reserved for those with serious mental illness, a term which is not taken to include most cases of self poisoning. The current situation should not be allowed to continue because self poisoning represents a major social and clinical problem. At least, large scale intervention studies are required to inform practice and ensure that our management of deliberate self

Department of Liaison Psychiatry, Leeds General Infirmary, Leeds LS1 3EX
Navneet Kapur, *research registrar*
Allan House, *senior lecturer*

Department of Psychiatry and Behavioural Sciences, Manchester Royal Infirmary, Manchester M13 9WL
Francis Creed, *professor*
Elspeth Guthrie, *senior lecturer*

Department of Psychological Medicine, John Radcliffe Hospital, Oxford OX3 9DU
Eleanor Feldman, *consultant in liaison psychiatry*

Leicester General Hospital, Leicester LE5 4PW
Trevor Friedman, *consultant in liaison psychiatry*

Correspondence to: Dr N Kapur, Department of Psychiatry and Behavioural Sciences, Manchester Royal Infirmary, Manchester M13 9WL

BMJ 1998;316:831–2

Management of 477 episodes of deliberate self poisoning in each study centre. Values are numbers (percentages) of patients

Centre (No of episodes)	Discharged from accident and emergency department	Discharged from accident and emergency department without psychosocial assessment	Received psychosocial assessment	Admitted to psychiatric ward	Followed up*
Leeds (101)	18 (18)	15 (15)	65 (65)	6 (6)	46 (45), general practitioner 16 (16), deliberate self harm team 28 (28), psychiatric services 10 (10), alcohol services
Leicester (111)	61 (55)	23 (21)	76 (68)	18 (16)	50 (45), general practioner 12 (11), deliberate self harm team 44 (40), psychiatric services 2 (2), alcohol services
Manchester (100)	71 (71)	46 (46)	36 (36)	11 (11)	67 (67), general practitioner 0, deliberate self harm team 31 (31), psychiatric services 1 (1), alcohol services
Nottingham (165)	53 (32)	42 (25)	80 (48)	13 (8)	98 (59), general practitioner 14 (8), deliberate self harm team 43 (26), psychiatric services 6 (4), alcohol services
All centres (477)	203 (43)	126 (26)	257 (54)	48 (10)	261 (55), general practitioner 42 (9), deliberate self harm team 146 (31), psychiatric services 19 (4), alcohol services

*Nine episodes were followed up by a variety of agencies, mostly social services or non-statutory agencies.

poisoning in the future is less arbitrary than it has been for the past three decades.

We thank hospital staff at all four centres for their help with data collection, and Dr David Owens and an anonymous referee for their comments on earlier drafts of this paper.

Contributors: NK helped with the study design, collected and analysed all data, and contributed to writing the initial draft of the paper. AH helped to design the study and contributed to writing the initial draft of the paper. FC, EF, TF, and EG contributed to final aspects of study design, helped collect data, and commented on drafts of the paper. NK and AH are guarantors for the study.

Funding: This study was funded by the Medical Research Council, grant number G9533540, to AH, FC, Professor K Hawton, and Professor M Williams. At the time of this study NK was supported by the Medical Research Council and Leeds Community Mental Health Trust.

Conflict of interest: None.

1 Hawton K, Fagg J, Simkin S, Bale E, Bond A. *Attempted suicide in Oxford 1995.* Oxford: University Department of Psychiatry, 1996.
2 Hawton K, Fagg J. Suicide and other causes of death following attempted suicide. *Br J Psychiatry* 1988;152:359-66.
3 Hawton K, James R. General hospital services for attempted suicide patients: a survey in one region. *Health Trends* 1995;27(1):18-21.
4 Department of Health and Social Security. *The management of deliberate self-harm.* London: Department of Health and Social Security 1984. (HN(84)25.)
5 House A, Owens D, Storer D. Psycho-social intervention following attempted suicide: is there a case for better services? *Int Rev Psychiatry* 1992;4:15-22.

(Accepted 23 September 1997)

Survival rates from interval cancer in NHS breast screening programme

Stuart Collins, Ciaran B J Woodman, Anthony Threlfall, Pat Prior

Centre for Cancer Epidemiology, University of Manchester, Christie Hospital NHS Trust, Manchester M20 4QL

Stuart Collins, *information scientist*

Ciaran BJ Woodman, *professor of public health and cancer epidemiology*

Anthony Threlfall, *research officer*

Pat Prior, *research fellow*

Correspondence to: Mr Collins

BMJ 1998;316:832–3

The NHS breast screening programme invites women aged 50-64 for screening every 3 years. In this programme the term interval cancer is applied to a breast cancer occurring within 3 years of a screening test with negative results. Substantially higher than anticipated rates of interval cancers have already been reported from the NHS breast screening programme,[1 2] and there is conflicting evidence on whether the survival rates of women with interval cancers are different from those of women with breast cancer occurring in an unscreened population.[3 4] Were interval cancers to have a worse prognosis than cancers in an unscreened population, the reduction in mortality from breast cancer in the screened population might be substantially less than predicted.

To interpret survival estimates for women with interval cancers requires identification of a suitable group of unscreened women for comparison. In the context of a national screening programme this is difficult. Women who do not respond to an invitation for screening, for example, have been shown to have a worse outcome than unscreened women and are therefore unsuitable.[4] The use of historical controls may also be inappropriate because of recent advances in managing breast cancer. Fortuitously, the phased introduction of the NHS screening programme in the north west has resulted in a group of women with breast cancer who lived in areas where screening had yet to be introduced whose survival can be compared with that of women diagnosed with interval cancers during the same calendar period. We report for the first time survival rates for interval cancers diagnosed during 1988-91 in the NHS breast screening programme.