

Local practice in emergency response provision	Usual practice in office hours	Usual practice outside office hours
Assessment of referrals from general practitioners:		
Accident and emergency department	84/167 (50)	108/165 (65)*
Hospital ward	102/168 (61)	110/165 (67)
Specialist psychiatric emergency clinic open	41/167 (25)	12/166 (7)*
Emergency assessments carried out at:		
Community mental health resource centre	73/173 (42)	1/173 (1)
Day hospital or day centre	74/172 (43)	0/172
Sector team staff available for emergency home assessments:	126/173 (73)	7/173 (4)*
Community psychiatric nurse	159/171 (93)	9/171 (5)
Social worker†	142/172 (83)	53/172 (31)
Psychiatrist†	169/171 (99)	107/171 (63)
Multidisciplinary crisis intervention team available for emergency assessments	26/173 (15)	5/173 (3)*
Domiciliary visits under Mental Health Act carried out by:		
Consultant psychiatrist covering whole district	24/172 (14)	149/172 (87)*
Sector consultant psychiatrist	97/172 (56)	8/172 (5)*

\*Difference between office hours and out of hours practice significant at  $P < 0.01$  level with paired comparison of proportions test.

†Outside statutory duties under Mental Health Act.

briefier questionnaires to all 248 local groups of MIND (the National Association of Mental Health) and all 160 local groups of the National Schizophrenia Fellowship; the questionnaires asked them to rate aspects of their local emergency services on a five point scale and to comment on the greatest strengths and weaknesses of these services.

We obtained completed questionnaires from providers in 173 health districts (87%). Most respondents (100 (58%)) were consultant psychiatrists, and they often also held a managerial role. In 52 (30%) districts a senior manager completed the form, and most other respondents were senior nurses. At least one MIND or National Schizophrenia Fellowship group responded in 155 (78%) districts.

The settings and staff used for emergency assessments in office hours (9 am–5 pm) and at other times are shown in the table. Outside office hours accident and emergency departments and hospital wards are most used for emergency assessments, while home assessment relies on district duty psychiatrists and social workers.

Respondents were also asked open ended questions about the greatest weaknesses of their local emergency services. The three aspects most often identified as greatest weaknesses by providers were poor out of hours service (40/152 (26%)), too few staff (32/152 (21%)), and lack of a crisis intervention team (27/152

(18%)). Voluntary groups identified the greatest weaknesses as difficulty in gaining access to emergency services (60/207 (29%) groups), poor service outside office hours (59/207 (29%)), and no crisis beds outside hospital (35/207 (17%)).

### Comment

There are striking differences between psychiatric emergency services provided during and outside office hours. During office hours a wide range of settings are used for emergency assessment and intervention, including community bases such as mental health centres, day hospitals, and day centres. Specialist psychiatric emergency clinics usually open between 9 am and 5 pm on weekdays. Night time services for urgent assessment and treatment rely on accident and emergency departments in general hospitals and the wards of psychiatric hospitals. Community psychiatric nurses and crisis intervention teams are not generally available outside office hours, and sector mental health teams usually take responsibility for emergency cover only 40 hours a week, leaving duty doctors and social workers to provide a service for the remaining 128 hours of each week, generally for a whole district.<sup>5</sup>

Emergency community mental health teams are still in their infancy, and they do not yet go out at night. Purchasers and providers may need to respond to the dissatisfaction expressed by local MIND and National Schizophrenia Fellowship groups, as well as by clinicians and managers, by developing and evaluating service models which provide an effective emergency response at night and at weekends.

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## Subarachnoid haemorrhage in first and second degree relatives of patients with subarachnoid haemorrhage

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Aggregation of subarachnoid haemorrhage has been described in numerous families,<sup>1</sup> but whether relatives of patients are at increased risk is unknown. If they are, they might benefit from screening for unruptured intracranial aneurysms since the outcome of subarachnoid haemorrhage is poor and asymptomatic aneurysms can now be repaired with low morbidity and mortality. We therefore studied the cumulative

incidence of subarachnoid haemorrhage among first and second degree relatives of patients with recent haemorrhage.

### Subjects, methods, and results

We prospectively collected a series of 163 patients with subarachnoid haemorrhage verified by computed tomography from the University Hospitals of Rotterdam, Utrecht, and Amsterdam, and for every patient we constructed a pedigree including all first and second degree relatives. All these relatives were interviewed by telephone in a standardised manner; they were asked about episodes of subarachnoid haemorrhage, sudden severe headache, stroke, and sudden death. For deceased relatives a next of kin was interviewed about the cause of death. When stroke or any other brain disease was reported, medical records were obtained if available. All histories and medical documents were reviewed according to strict criteria, defined in advance, for the diagnosis of subarachnoid haemorrhage. The Cox proportional hazards model was used to compare the incidence of subarachnoid

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haemorrhage in first and second degree relatives.

The 163 patients had 1290 first degree relatives and 3588 second degree relatives. History or cause of death was known in 1259 (98%) of the first degree relatives and in 3038 (85%) of the second degree relatives. Ten first degree relatives (of nine index patients) and four second degree relatives had subarachnoid haemorrhage (hazard ratio 6.6 (95% confidence interval 2.0 to 21);  $P=0.001$ ). In addition, seven first degree relatives and 12 second degree relatives met criteria for possible subarachnoid haemorrhage (hazard ratio 2.7 (1.4 to 5.5);  $P=0.004$ ). The cumulative incidence of subarachnoid haemorrhage is shown in the figure.

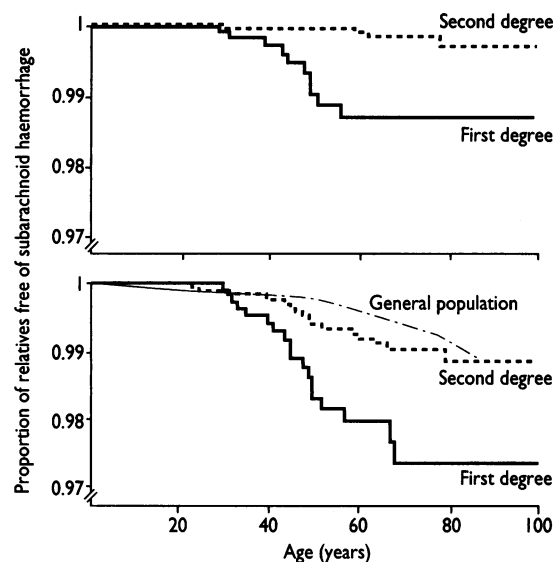
### Comment

We found that subarachnoid haemorrhage occurs almost seven times more often in first degree than in second degree relatives. Even when possible episodes were included the risk was still significantly higher, despite the dilution effect caused by including patients without subarachnoid haemorrhage in both groups.

To our knowledge our study is the first to show this increased risk in first degree relatives. Three previous studies addressed the incidence of familial subarachnoid haemorrhage.<sup>2,4</sup> In a study from Sweden the incidence of intracranial aneurysms among siblings of patients was similar to that in the general population but data were collected by means of a written questionnaire sent to survivors of subarachnoid haemorrhage.<sup>2</sup> In a study from Finland no distinction was made between first and second degree relatives.<sup>3</sup> Case finding was probably less complete in both studies.<sup>2,3</sup> In a case-control study from the United States no significant difference was found in the frequency of affected first degree relatives, but the family history was not verified.<sup>4</sup>

An important consideration in assessing the risk of subarachnoid haemorrhage in relatives of patients is the incidence expected from population studies; this comparison was not performed in two of the previous studies.<sup>2,3</sup> We compared our results with those of the Oxfordshire community stroke project, which is a recent and reliable study of the incidence of stroke in Western Europe,<sup>5</sup> and found similar rates for cumulative incidence in the second degree relatives (figure). This supports the notion that first degree relatives in particular are at increased risk of subarachnoid haemorrhage.

We conclude that a familiar factor is important in the development of subarachnoid haemorrhage. First degree relatives of patients run at least a three to seven times greater risk than the general population. This



Top: Kaplan-Meier curves for cumulative incidence of subarachnoid haemorrhage in first and second degree relatives of patients with subarachnoid haemorrhage. Bottom: Kaplan-Meier curves for cumulative incidence of all subarachnoid haemorrhage including possible episodes in first (10 definite and seven possible cases) and second degree relatives (four definite and 12 possible cases) of patients with subarachnoid haemorrhage. Cumulative incidence in general population (Oxfordshire community stroke project; 19 definite and 14 possible cases according to our criteria) is shown for comparison

means that the lifetime risk of subarachnoid haemorrhage is between 2% and 5% in first degree relatives. Therefore, screening for unruptured aneurysms should at least be considered in first degree relatives of patients with subarachnoid haemorrhage.

The complete definitions of our different diagnostic categories of subarachnoid haemorrhage and the references from which they were derived are available on request.

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## Health promotion by encouraged use of stairs

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The national fitness survey for England concluded: "the high prevalence of physical inactivity suggests that it may be even more important for public health than attention to cholesterol, arterial blood pressure or smoking."<sup>1</sup> The prevalence and risk of inactivity in the United States led the American College of Sports Medicine to issue guidelines suggesting that sedentary adults should have at least 30 minutes of accumulated moderate physical activity on most days of the week.<sup>2</sup> To achieve this target the members of the public should be encouraged to add activity into their daily routine at every opportunity.

This study investigated whether Scottish commuters or shoppers would respond to an intervention consisting of motivational signs encouraging them to walk up stairs rather than take an escalator.

### Subjects, methods, and results

Signs saying "Stay Healthy, Save Time, Use the Stairs" were placed in a city centre underground station where stairs (two flights of 15 steps) and escalators were adjacent. Observers recorded the number of men and women using the escalators and stairs on Mondays, Wednesdays, and Fridays between 8.30 am and 10 am over a period of 16 weeks. Subjects carrying luggage or with pushchairs were excluded. Observations were made over one week before the signs were put up (baseline), over three weeks when the sign was present, over two weeks immediately after the sign was removed, and during the fourth and 12th