Table 1—*Number of emergency plans that contained specified elements of planning*

Arrangements specified in guidance	No of plans (%)
Action cards	119 (84)
Standard alerting messages	67 (47)
Handling relatives	123 (87)
Handling press	132 (93)
Liaising with police	126 (89)
Handling volunteers	105 (74)
Handling important visitors	35 (25)
Audit of plan	58 (41)
Training requirements	35 (25)
Managing injured children	44 (31)
All guidance	6 (4)

incidents,[5] yet few plans specified plans for audit or the training of staff. Few plans specified procedures for the management of children, and when they were included they typically consisted of the use of a paediatrician to help in the triage and treatment of paediatric casualties. This is unlikely to be adequate in an incident resulting in large numbers of injured children.

Health service guidelines state that plans should be reviewed at regional level. The small number of plans conforming with current guidance shows that this review procedure is not effective. Most hospital major incident plans need revision, and methods of reviewing plans should be strengthened in the light of these results.

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Blood pressure and mortality in healthy old people: the r shaped curve

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In middle age mortality rises exponentially with increased blood pressure. In advanced age, however, people with the highest systolic pressures are less likely to die than those with lower pressures.[1] This paradox is usually attributed to the association of diseases, such as cancer and cardiac failure, with low blood pressure. We sought to reduce the confounding effect of disease by prospectively examining blood pressure and mortality in healthy old people.

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Subjects, methods, and results

We screened general practice casenotes of 10 000 patients aged over 69 years to identify healthy subjects for a study of the effects of hypertension on cognition.[2] We visited 1467 subjects at home and asked about health problems and medications. Six hundred and three subjects (237 men, 366 women), mean age 75.7 years (range 70-88 years), reported no health problems and were taking no regular medication. We asked about educational attainment and occupation and at the end of the 20 minute interview measured blood pressure in a sitting position with a standard sphygmomanometer. Mean systolic blood pressure was 160 mm Hg (range 100-220 mm Hg) and mean diastolic blood pressure 86 mm Hg (range 50-120 mm Hg).

Four years later we determined the outcome in all 603 subjects by revisiting general practitioners' surgeries and tracing those cases not found via the local primary care division. Sixty nine subjects (40 men, 29 women) were identified as having died, and we found death certificates for 67. Logistic regression revealed male gender (odds ratio 1.61, 95% confidence interval 1.23 to 2.12) and older age (odds ratio 1.17, 1.10 to 1.25, per year) as the only factors associated with increased mortality. Systolic blood pressure as a continuous variable improved the model only marginally (P = 0.051, positive relation). Diastolic pressure, education, and occupation had no effects. To investigate the possibility of a non-linear relation between blood pressure and mortality, we stratified systolic pressure into three groups close to the 33rd and 67th centiles: low (<150 mm Hg, n = 192), medium (150-169 mm Hg, n = 182), and high (≥170 mm Hg, n = 229). Entering these blood pressure groups significantly improved the age-sex mortality model (χ^2 = 6.68 with 2 df, P = 0.04), with low systolic blood pressure associated with a lower risk (odds ratio 0.59, 0.38 to 0.92) and medium systolic blood pressure a higher risk (1.47, 1.01-2.15) than high systolic blood pressure. Table 1 shows the crude mortality for each group. The excess deaths in the medium and high groups were mostly due to cardiovascular and cerebrovascular disease.

Table 1—*Crude four year mortality rates not adjusted for age or sex by systolic blood pressure group for 603 healthy old people. Expected deaths per group adjusted for age and sex but not blood pressure*

Systolic blood pressure	No of subjects screened (% total)	No of deaths (% total, % of blood pressure group)	Expected deaths (% total)
Low (<150 mm Hg)	192 (32)	13 (19, 7)	20.5 (30)
Medium (150-169 mm Hg)	182 (30)	27 (39, 15)	21.2 (31)
High (≥170 mm Hg)	229 (38)	29 (42, 13)	27.3 (40)
Total	603 (100)	69 (100, 11)	69 (100)

Comment

We found that healthy old people with casual systolic readings below 150 mm Hg have a better survival than those with higher pressures. Only 17 subjects (2.8%) had systolic readings below 120 mm Hg, suggesting that subjects with serious disease had been excluded from the group. Mortality was 5% in subjects with readings below 140 mm Hg, 8% in those with pressures of 140-149 mm Hg, rising to 16% in those with pressures of 150-159 mm Hg and 14% in those with pressures of 160-169 mm Hg. Although regression to the mean will affect high and low casual readings, the medium readings are probably close to prevalent pressure. The group with high blood pressure may fare better than the medium group because they are more likely to be treated.[3] We identified 30 subjects started on antihypertensive medication where blood pressure at initiation had been noted by the general practitioner. Median starting pressure was 200 mm Hg: only one person with

a systolic pressure below 170 mm Hg was treated. Currently treatment is recommended at 160 mm Hg[4]; our findings suggest that in otherwise healthy old people we should consider the New Zealand criteria and treat systolic blood pressures above 150 mm Hg.[5]

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Waiting times for and attendance at paediatric ophthalmology outpatient appointments

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An outpatient initiative started in Glasgow in July 1994 with the aim of reducing waiting time for first hospital appointments for children referred by general practitioners with suspected amblyopia or strabismus. Benefits of reduced waiting times for first hospital appointments include compliance with the Patient's Charter and the possibility of treating amblyopia at an earlier stage. A potential additional benefit of reduced waiting times might be improved attendance rates at the first appointment. The long waiting times existing at the beginning of the initiative and the subsequent reduction provided a sufficient range of waiting times to allow this effect to be investigated. The specialised nature of the clinic meant that all parents had been told by their general practitioners that strabismus or amblyopia was suspected, hence reducing variation in parental perception of the severity of their child's problem. Social class has been found to influence attendance rates at paediatric clinics,[1] and this relationship was investigated in our study.

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Methods and results

Relevant patient details were prospectively entered into a database. Patients who failed to attend the first appointment were sent only one more and if they failed to attend the second the general practitioner was informed. A total of 884 patients were referred during the 10 month study period, July 1994 to April 1995, but the data analysis is restricted to the 781 patients for whom complete information (attendance, waiting time, and social class) was available. The total number of patients who attended their first appointment was 633 (81%). Of the 148 patients who failed to attend the first appointment 78 (53%) also failed to attend the second, meaning that 10% of patients referred to the hospital service did not reach it. The mean waiting time for the first appointment was 70.6 days (SD 38.8). The minimum waiting time was 22 days and the maximum 392 days.

Social category 1 (less deprived) consisted of the 340 (43.5%) patients from postcode areas with deprivation scores of 1-5 on the Carstairs and Morris classification[2] and category 2 (more deprived) consisted of the 441 (56.5%) from areas with scores of 6 and 7. Eighty six per cent of social category 1 patients attended the first appointment compared with 77% of social category 2 patients (X^2=10.30; P<0.002).

Table 1 illustrates the effect of waiting time on attendance in the two social categories. Waiting time (in this table only) was categorised into five roughly equal groups, and attendance in both groups was reduced with increasing waiting time. Stepwise logistic regression analysis (taking waiting time as a continuous variable and coding social category as +1 and −1 for categories 1 and 2 respectively (n=820)) showed a highly significant relation between attendance and waiting time for both social categories with log odds regression coefficients (standard errors) for the constant social category and waiting time of 2.404 (0.204), 0.307 (0.099), and −0.0118 (0.0023) respectively.

Table 1—*Percentage of non-attenders by waiting time and by social category among 781 children referred to an eye clinic (numbers and denominators are given in parentheses)*

	Waiting time (days)				
Social category	**<45**	**46-55**	**56-65**	**66-95**	**>96**
1	9.5 (8/84)	13 (8/61)	15 (8/55)	11 (8/71)	22 (15/69)
2	14 (14/100)	15 (13/86)	23 (19/84)	24 (19/81)	40 (36/90)

Comment

At a time of increasing pressure to justify resource allocation, the finding that shorter waiting times are accompanied by improved attendance rates for first hospital appointments is important. More than half the patients who failed to attend their first appointment never reached the hospital service. Improved first appointment attendance rates therefore mean that fewer children are missing out on the opportunity of treatment for amblyopia, the commonest preventable visual disability. Reduced non-attendance rates will also lead in turn to more efficient clinics and further reductions in waiting times.

The poorer attendance rates for first appointments among patients from more deprived areas are still a concern, particularly in view of recent reminders of increasing socioeconomic health differentials in Glasgow.[3] Any means of improving attendance in the lower socioeconomic groups such as that shown in this study is therefore particularly important. Further means of improving access to health care for these deprived groups (such as situating specialised clinics more locally) should be sought.

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