Night calls in a single-handed rural practice

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SUMMARY. Night calls attended by one doctor during five consecutive years (1973 to 1977) in a single-handed rural practice, were analysed and divided into two categories: (a) reasonable; (b) unreasonable. Half the night calls were genuine emergencies but 17 per cent were quite unnecessary.

Introduction

LOCKSTONE (1976) classified night calls in a group practice in Whitby in 1974, and Morton (1979) provided a similar study in North Berwick.

Aim

My aim was to ascertain the incidence of night calls and assess their urgency and their management.

Method

This single-handed rural practice is situated in Hovingham, North Yorkshire and serves several villages reaching a radius of eight miles from the Family Medical Centre. It has a list of 1,760 patients and about 100 temporary residents a year. The practice is completely rural and there are many retired people (18 per cent of the patients are over 65 years of age). The nearest general hospital is York District Hospital 18 miles away.

The practice midwifery is carried out in a new general practitioner unit at Malton Hospital eight miles away, but maternity calls have been excluded from this study.

All calls were recorded between 23.00 hours and 07.00 hours on Form EC18 the next day and the details entered into the practice diary on returning from the calls. These details included time of call, name and age of patient, diagnosis, and management, in one of three categories: admitted to hospital, revisited the next morning, or no follow-up visit required.

The calls were classified simply into two categories: (a) reasonable; (b) unreasonable. Reasonable calls were defined as any severe conditions requiring treatment to save life or prevent unacceptable deterioration in health; to alleviate pain, distress, or discomfort (hence there are a few terminal care calls in this group); or to provide requisite reassurance. No treatment was given to the group of patients whose calls were considered unreasonable. Only 'abusive' and quite unnecessary calls (such as drunkenness) were put into this category.

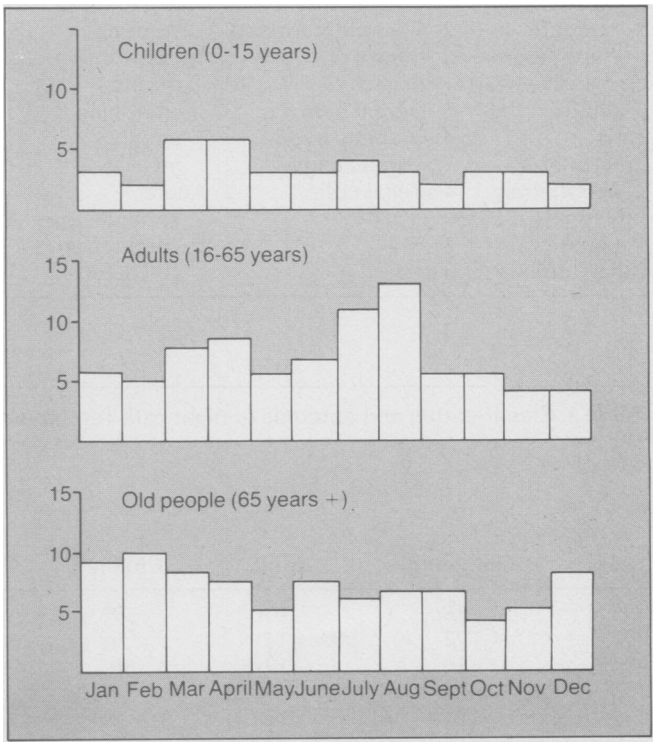
Results

The total number of night calls was 211. The rate has remained remarkably constant at 23·9 night calls per 1,000 patients per year: 41 in 1973, 42 in 1974, 43 in 1975, 42 in 1976, and 43 in 1977.

The calls divided into roughly 80 per cent for medical conditions and 20 per cent for surgical conditions.

When the rate is analysed by age group per 1,000 patients per year, the results are: old people (65 years+) 63; adults (16 to 65 years) 6·5; and children (0 to 5

Figure 1. *Night calls by age group and month of the year (1973 to 1977).*



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years) 1·25. Figure 1 shows the results analysed by age group according to the month of the year.

The peak months for calls to old people were in the winter: December, January, February, and March. Night calls to adults reached a peak in April, July and August, owing to an influx of temporary residents, but otherwise they were fairly constant. The number of night calls to children was higher in March and April, probably owing to the higher prevalance of respiratory tract infections during those months; otherwise the rate was constant but very low.

Table 1 compares the percentage of night calls made in Hovingham with those in Whitby and North Berwick. Ninety-two per cent of the Hovingham calls were considered reasonable, correlating closely with 93 per cent for Whitby in 1974 and 96 per cent for North Berwick in 1977. Fifty-one per cent were genuine emergencies compared with 48 per cent for Whitby in 1974 and 52 per cent for North Berwick in 1977.

The night call rate in Hovingham, however, is higher—at 23·9 calls per 1,000 permanently resident patients per year—than either the North Berwick rate of 15·9 calls per 1,000 or 10·7 calls per 1,000 recorded in Whitby in 1974. It is nearer that recorded by Barley (1979) in Sheffield of 20·8 per 1,000 per year.

Table 2 shows the commonest causes of a night call in three separate age groups. Cardiovascular causes predominate in old age, emotional disturbances in adults, and infections in children. The outcome of each call is shown in Table 3. The number requiring admission to hospital has steadily increased, the number classified as unnecessary has declined in 1977, being a third of the 1973/74 rate.

Table 1. Comparison of night calls made in Whitby, North Berwick and Hovingham (percentages).

	Whitby 1974	North Berwick 1977	Hovingham 1977
Emergencies	*48*	*52*	*51*
Reasonable	*45*	*44*	*41*
Unreasonable	*7*	*4*	*8*

Table 2. Commonest cause of night calls (in order of frequency) 1973 to 1977.

Old people		Adults		Children	
Terminal care	21	Anxiety neurosis	13	Infantile convulsions	7
Myocardial infarction	12	Alcohol abuse / Family row	11	Asthma	6
Cerebrovascular insufficiency	10	Myocardial infarction	10	Bronchitis	5
Broncho-pneumonia	9	Road traffic accidents	8	Croup	4
Cerebrovascular accident	2	Gastro-enteritis	8	Gastro-enteritis	4
Hypothermia	5	Biliary colic	5	Otitis media	2
Congestive heart failure	5	Bronchitis	4	Falls requiring suturing	2
Falls	4	Dental pain	3	Specific infection (such as whooping cough, measles)	1
Prostatic obstruction	4	Diabetic hypo-glycaemia	2	Acute appendicitis	1
Intestinal obstruction	4	Renal colic	2	Diabetic hypo-glycaemia	1
Biliary colic	3				

Discussion

The higher rate of night calls in Hovingham is probably due to four factors:

1. Patients are more likely to call a personal friend, their own family doctor, to their bedside at night if taken ill. Patients are far more reluctant to call a locum out at night when a family doctor is on holiday or study leave.

2. There is a higher rate of illness amongst my patients and a greater number of old people on the permanent list.

3. The personality of the individual doctor plays a considerable part. I am reluctant to give advice over the telephone during the night since if my patient is worried enough to ring me he probably needs a visit. I do night calls to alleviate pain in terminal cancer and keep as many of these patients at home as possible.

4. I agree with Barley (1979) that the smaller the number of patients on a doctor's list the more attention they obtain.

My night call rate in a single-handed industrial practice in the Highlands (Kinlochleve, Argyll) was high at 22 calls per 1,000 patients per year (1970 to 1972).

Table 3. Classification and outcome of night calls for three age groups, 1973-1977.

				Classification of call		Outcome	
Year	Old People	Adults	Children	Necessary (percentage)	Unnecessary	Admitted to hospital (percentage)	Revisited next morning
1973	16	16	9	*74*	*26*	*10*	*50*
1974	22	14	6	*76*	*24*	*7*	*56*
1975	16	19	8	*86*	*14*	*17*	*63*
1976	22	13	7	*86*	*14*	*20*	*58*
1977	21	12	8	*92*	*8*	*35*	*58*

However, this enthusiasm for 'moonlighting' has to be tempered with discretion for "it is certainly more difficult, as one gets older, to cope with loss of sleep and still perform reasonably effectively the next day" (Higgins, 1978).

Conclusions

The Hovingham survey completely refutes the original contention that night calls are largely unnecessary in general practice. Although the number of night calls has been consistent for the years 1973 to 1977, the number of unnecessary calls has steadily decreased from 26 per cent in 1973 to only eight per cent in 1977. This because a few difficult and unreasonable families have chosen to leave my list and I have fortunately been able to educate the other previous abusers. Meanwhile, the number of patients with serious conditions who need help from the doctor during the night has increased. (Incidentally, the number of unnecessary calls for the old people has remained constant at the very low figure of two per cent, it is in the adult section that most of these have occurred.) My figures agree remarkably with those of Lockstone (1976) and Morton (1979) and my conclusions are the same as Lockstone:

1. There is a low incidence of patient abuse (especially when patient and doctor get to know each other).
2. There is a high incidence of real illness requiring prompt skilled attention. (This is increasing in my practice, especially amongst old people.)
3. Most emergencies require initial and sometimes life-saving treatment before transfer to hospital. (Eighteen miles is a long journey in a bumpy ambulance at night and in winter roads can be hazardous in rural areas.)
4. Patients and their relatives cannot be expected to make a differential diagnosis when confronted with a frightening, distressing, and often painful problem.

References

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