A survey of registered nursing homes in Edinburgh

WILLIAM R. PRIMROSE, MRCP, MRCGP
Senior Registrar in Geriatric Medicine, City Hospital, Edinburgh

ANN E. CAPEWELL, MB, MRCP
Senior Registrar in Geriatric Medicine, Longmore Hospital, Edinburgh

SUMMARY. Between February and November 1984, 18 registered nursing homes in Edinburgh were visited and information was obtained about their 400 patients. Details of the facilities provided by these homes are presented here. Admission and biographical details were obtained for each patient and the dependency of the nursing home population was determined; 28% of the total population appeared to be independent in self-care, though there were large variations between homes. Forty-two patients (10.5%) were found to be receiving Department of Health and Social Security supplementary benefit. The characteristics of this group are compared with those of the rest of the nursing home population. The implications of these observations and recent legislative developments are discussed.

Introduction

THE number of elderly people requiring some form of institutional care will increase over the coming decades.[1] Much information is available concerning the present National Health Service (NHS) and local authority provision and the long-term requirements in the light of predicted demographic changes.[2] Within the spectrum of institutional care of the elderly there is a thriving voluntary and private sector. Some of the characteristics of a group of private residential homes have recently been described[3] but there have been few studies of nursing homes.[4,5]

The registration and inspection of nursing homes is the responsibility of area health boards whereas residential homes for the elderly are supervised by local authorities. Legislation governing the conduct of nursing homes was most recently amended in the 1984 Nursing Home Act (England and Wales).[6] Following this act, a handbook was published which summarized the areas to be covered by registration and inspection teams in England and Wales.[7] Until recently almost all patients in nursing homes were self-financed. Following the 1979 supplementary benefit regulations nursing home patients became eligible for supplementary benefit. However, there were varying interpretations of the act and it was not until amendments were made in November 1983 that nationwide agreement was established, with supplementary benefit available for eligible patients up to locally fixed amounts.[8] There was no requirement for medical assessment to determine whether such nursing care was appropriate. These legislative developments had major implications for nursing homes, but little information is available on this area of care. It was therefore decided to survey the nursing home population of a Scottish city.

Method

A list of registered nursing homes caring solely or primarily for the elderly in Edinburgh was obtained from Lothian Health Board.

Initial contact with each nursing home was made by letter, briefly explaining the reason for the study and emphasizing the independent status of the investigators and that cooperation was entirely voluntary. Where the response was favourable an appointment was made to visit the home. At this visit the nature of the research was more fully explained and some initial details of the home obtained. These details included a list of patients and their respective general practictioners. Each general practitioner was then contacted by telephone and the nature of the study explained. After general practitioner approval had been obtained, the nursing home was visited again and one of the investigators completed a questionnaire for each patient from information supplied by the owner or nurse-in-charge. Biographical and admission details and information about those receiving Department of Health and Social Security (DHSS) supplementary benefit were obtained. For each patient the floor level of their bedroom and the number of occupants per room were determined, as was the frequency of visiting by family or friends. The dependency of each patient was assessed by determining their feeding and dressing ability, any urinary or faecal incontinence and skin pressure problems and their degree of mental impairment and mobility. Details of any prescribed medicines were noted. No attempt was made to examine the patients or independently validate the information supplied by the nursing staff.

The information obtained was coded and the names of individual patients and homes was removed prior to processing the data. The BMDP package was used for statistical analysis where appropriate.[9]

Results

Between February 1984 and November 1984, 18 out of a possible 21 registered nursing homes were visited and information was obtained on 400 patients. One owner of three homes, registered for a total of 86 patients, declined to cooperate in the study. Each patient's general practitioner was contacted and all agreed to their patients being incorporated in the study.

Details of the nursing homes, room occupancy and facilities provided

All of the nursing homes visited were buildings which had been constructed before 1945, usually as private dwellings and later adapted to their present purpose. In one home there was a new wing containing 10 beds. In all the other homes any structural changes were within the existing building. Most homes had a garden area though access to some was difficult if the mobility of the patient was poor. None of the homes was solely at street level and only four had a lift reaching all floors. Common or dining room facilities were available in eight of the homes visited, with three others having some form of day area (for example, a large hall or porch). The majority of patients shared rooms, only 35% of the 400 patients did not share, 21% shared with one other patient, 12% with two others, 17% with three others, 11% with four others and 4% with seven others. One hundred and ten patients (27%) shared rooms in homes which did not have proper common rooms, thus making privacy or the private entertainment of visitors difficult.

Numbers of patients, fees charged and paramedical support

The mean number of patients per home was 22 (range 12–57). At the time of the survey, the registered bed complement in five homes was exceeded by one or two patients. There were only seven empty beds, indicating 98% bed occupancy. The charges for basic care ranged from £105 to £350 per week. In general, the lower charges within each home reflected shared rooms without private facilities. There were usually additional fees for physiotherapy and occupational therapy if required and for chiropody, hairdressing and personal laundry.

Age, sex and marital status

The majority of the population studied was elderly and female. For 368 females (92% of the total nursing home population) the mean age was 85.4 years. The 32 males (8%) had a mean age of 82.5 years. Nine of the 18 nursing homes had no male patients. Of the total population, 38% had never married, 59% were widowed, 2% were still married and 1% were separated or divorced.

Source and type of admission, duration of stay and visiting frequency

Almost half of the patients (187; 47%) were admitted from home, while 146 (37%) were transferred from an NHS hospital bed to the nursing home. The remainder were transferred from another nursing home (9%) or from a variety of other types of accommodation (8%), for example private residential homes for the elderly, sheltered housing or hotels. Few patients (5%) were admitted from outside the Edinburgh area. Nearly all of the patients (96.5%) were long-term residents, though for some the arrangement had initially appeared temporary. The remainder were admitted for a brief period of convalescence or holiday relief for caring relatives or for terminal care. The mean duration of stay for all residents was 2.0 years; the maximum duration of stay was 12.3 years. Most patients were visited regularly by family or friends; 77% approximately weekly or more often, 15% approximately monthly and the remaining 7% were seldom, if ever, visited.

Dependency of the nursing home population

The dependency of residents was determined by asking nursing staff about patients' performance rather than potential, and the results are summarized in Table 1. Seventeen patients were reported to have superficial skin breakdown and three had full thickness pressure sores.

Details of all prescribed medicines taken by individual patients were obtained. Only 34 patients were receiving no medication.

Fitness for residential care

An overall assessment was made of each patient as to whether that individual met the usual criteria for entry to a local authority residential home for the elderly. It was felt that 28% of the total nursing home population fulfilled the usual requirements being independent (or very nearly so) in self-care and not demonstrating behavioural difficulties due to mental impairment. A further 7% were on the borderline of fitness for residential care. The remainder (65%) required more care than would be expected within the context of a residential home for the elderly.

Table 1. Dependency of nursing home population (n = 400).

Characteristic	Number	(%) of residents
Feeding[a]		
Independent	321	(80)
Some assistance needed	35	(9)
Dependent	44	(11)
Dressing[b]		
Independent	114	(29)
Some assistance needed	98	(25)
Dependent	180	(45)
Not possible/bedbound	8	(2)
Incontinence of urine[c]		
Never	179	(45)
Occasional	97	(24)
Frequent	106	(26)
Catheterized	18	(5)
Incontinence of faeces		
Never	296	(74)
Occasional	32	(8)
Frequent	72	(18)
Mental impairment		
None	108	(27)
Mild	101	(25)
Moderate	82	(21)
Severe	109	(27)
Mobility (from bed)		
Independent	203	(51)
Some assistance needed	67	(17)
Dependent	122	(31)
Not possible/bedbound	8	(2)
Mobility (from chair)		
Independent	225	(56)
Some assistance needed	55	(14)
Dependent	112	(28)
Not possible/bedbound	8	(2)
Mobility (walking)[d]		
Independent	211	(53)
Some assistance needed	61	(15)
Dependent	79	(20)
Not possible (includes wheelchair use)	49	(12)

[a] Residents were classified as independent if only assistance required was to cut up meat.
[b] 98% of patients dressed daily. The small group of patients who did not dress were either debilitated or were exercising their preference to remain in night-clothes.
[c] Of 203 patients occasionally or frequently incontinent of urine, and not catheterized, 49% made use of incontinence pants. The policy within individual homes with regard to regular toileting was not determined, although it was clear that some nursing home staff took great care to minimize incontinence by these methods.
[d] A walking aid was used by 179 patients — 40% using a stick or sticks, 6% a tripod and 54% a Zimmer. Wheelchairs were in use in 11 homes with 26 patients being wholly dependent and 24 patients partially dependent.

Dependency of patients within different homes

Patient dependency, and therefore nursing load, varied widely between different homes. The type of patient within a home reflected, to some extent, the preferences of the owner or nurse-in-charge. Some homes were happy to accept patients with major physical dependencies, while others accepted many patients with moderate or severe mental impairment. The proportion of patients within each of the 18 homes who were considered to be fit for residential care ranged from 14% to 62%. This wide range

in dependency did not appear to correlate with the size of the home, staffing ratios or fees charged.

Dependency and source of admission

The 146 patients admitted from hospital formed the most dependent group, though 31 (21%) were considered to be largely independent in self-care. Of 187 patients admitted direct from home, 64 (34%) were independent. The difference between these two groups was significant (chi-square = 6.2, $P < 0.02$). Almost a quarter (24%) of those patients admitted from other sources were independent in self-care.

Medical care

In one nursing home, primary care was provided by an associate specialist in geriatric medicine, with nearly all of that home's patients joining her restricted list. The remaining 345 patients were cared for by 106 different general practitioners. Most general practitioners visited regularly, many on a routine basis. Some nursing home owners required the general practitioner to visit regularly — on average, monthly. A small minority of patients were scarcely ever visited by their doctor. One psychogeriatrician visited several homes on an informal basis, following up patients who had previously been under his care and had found places in the registered nursing home sector.

DHSS supplementary benefit

Ten homes contained patients receiving DHSS supplementary benefit. Of these 42 patients, 39 were identified and their characteristics were compared with the remainder of the nursing home population. Most of the patients receiving benefit (90%) had been admitted since November 1983, when the DHSS regulations were amended, the remainder receiving supplementary benefit as their private funds became exhausted. Of the 132 admissions since November 1983, 26.5% were receiving supplementary benefit. The age and sex of patients receiving supplementary benefit did not differ from the remainder of the population. However, the marital state of those receiving benefit was different, with 18% single, 74% widowed, 5% married and 3% separated or divorced compared with 41% single, 57% widowed and 2% married, separated or divorced for self-financing patients. The source of admission of patients receiving supplementary benefit also differed with 69% being admitted from hospital, 28% from a private dwelling and 3% from hospital. For self-financing patients the admission sources were hospital 33%, private dwellings 49%, other nursing homes 9% and residential homes for the elderly, hotels or sheltered housing 9%. Proportionally more of the patients receiving supplementary benefit were sharing a room with four or more occupants than those not receiving benefit; this trend was significant ($Z = 3.69$; $P < 0.001$). The cost of a single room would often lie beyond the limit of supplementary benefit.

The physical dependency of patients receiving supplementary benefit did not differ significantly from that of the remainder of the nursing home population. However, there was a higher proportion of patients with severe mental impairment in the group receiving supplementary benefit as a result of several homes admitting patients from a local psychogeriatric unit.

Discussion

To date little has been published on the biographical details and dependency of patients resident in registered nursing homes, and the main purpose of this study was to present such data. The physical characteristics and facilities of each home was not of primary concern but it was noted that none of the buildings were originally designed as registered nursing homes for the elderly. The owners of the homes have been limited by physical as well as financial constraints in making the buildings more suitable to the care of the frail elderly. However, the lack of a lift in most homes, and the number of homes without suitable day rooms, did give cause for concern. The staff who provided information about their patients were cooperative and friendly. In most homes the atmosphere was personal, warm and caring. Some staff commented on their relative isolation and lack of awareness about nursing advances, and it was felt that the development of an in-service training programme would improve morale and recruitment, as well as enhance patient care.

It would have been preferable to have ascertained the level of dependence of each patient objectively, but the study design precluded this. Nevertheless, it was felt that the information obtained was accurate and little difficulty was experienced in completing the questionnaire. The population studied was very elderly, with the majority requiring assistance with mobility, dressing and continence and supervision owing to mental impairment. Few patients required intensive nursing, though a small number of patients had been admitted for terminal care. In contrast, a surprising number required no nursing at all, and appeared independent in self-care. It was estimated that 112 (28%) of the 400 patients studied met the entry criteria for a residential home for the elderly, with a further 28 (7%) being of borderline fitness. However, as this group become older and more dependent, then, in contrast with many residents in residential homes for the elderly, no further move need be contemplated as nursing care is available.

Within the UK there are large regional variations in the provision of nursing homes — it is high on the south coast of England and low in areas of lesser affluence.[10] Scotland has fewer than 6% of the UK nursing home places and within Scotland there are wide variations in nursing home numbers. The number of registered nursing home beds primarily for the elderly in Edinburgh exceeds the combined nursing home bed complements of the other three main Scottish cities, Glasgow, Aberdeen and Dundee. At the time of this survey there were 486 registered nursing home beds primarily for the elderly in Edinburgh. In 1981 Edinburgh had a population of 436 936 with 73 264 (16.8%) aged 65 years or over and 29 621 (6.7%) aged 75 years or over.[11] There were, therefore, 6.6 registered nursing home beds per 1000 population aged 65 years or over, or 16.4 registered nursing home beds per 1000 population aged 75 years or over.

This study took place shortly after DHSS supplementary benefit for the elderly became widely available. It was of interest to note that the small, but increasing, number of patients receiving supplementary benefit were mostly admitted from NHS hospital units. In Edinburgh, as in many cities, there is a long waiting list for placing geriatric and psychogeriatric patients in hospital or residential home care, and the opportunity of placing patients in nursing homes was seen as a means of alleviating the problem, albeit temporarily.

There is considerable concern about the lack of specialist assessment prior to admission to nursing homes. Where there is easy access to nursing home beds patients may be admitted with undiagnosed and potentially reversible pathology, and without the skills of an active assessment or rehabilitation team patients may be placed permanently in a nursing home when this is unnecessary. The value of a geriatrician assessing clients entering residential homes for the elderly has been demonstrated[12] and the extension of similar schemes to the voluntary and private sector would appear to be beneficial. For patients wishing to receive DHSS supplementary benefit, medical assessment should be mandatory and state-funded support for nursing home accommodation should be restricted to patients requiring nursing care.

There are many advantages to small, well-run but homely units, which are conveniently placed for relatives and which, provide care for individuals with minimal disability and for patients requiring skilled nursing. The experimental NHS nursing homes aim to care for patients who are as dependent as patients in long-term geriatric wards,[13] and this study indicates that many nursing home patients are much less dependent than this. The present systems of either residential supervision or nursing care are too inflexible for the changing needs of the elderly. There are already considerable overlaps in patient dependency and one of the goals for compassionate care of the elderly must be an imaginative and flexible approach to changing dependency. The nursing home sector is a significant resource which, given appropriate guidelines and controls, could be of great value in providing care for some of our ageing population. It must be appreciated, however, that such care will not necessarily be cheap and to view nursing homes as a simple alternative to long-term geriatric care would be naive.

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Acknowledgements

The authors are indebted to the nursing home owners and staff, without whose willing cooperation this study would have been impossible.

The receipt of a Lothian Health Board grant is acknowledged. We thank Dr W.C. Cockburn, Community Medicine Specialist and senior geriatrician and physician colleagues for their interest and advice, Mrs C. McIntyre for computing and statistical help and Mrs S. Brown for secretarial assistance.

Address for correspondence

Dr W.R. Primrose, Department of Geriatric Medicine, City Hospital, Greenbank Drive, Edinburgh EH10 5SB.