Opportunities for Anticipatory Care With the Elderly

Robert Hedley, MB, MRCGP, Shah Ebrahim, DM, MSc, MRCP(UK), MRCGP, MFCM, and Michael Sheldon, MB, FRCGP
Borrowash, Derbyshire, and Nottingham, England

Contacts made by the elderly in a group general practice were monitored over seven months to describe how the elderly use services and to consider how a program of anticipatory care might be instituted. Eighty-four percent (1,562) of the patients aged over 65 years were seen during this period, and there were 4,315 contacts logged. Contact rates and the proportion of home visits were higher for patients aged over 75 years. More than three quarters of contacts were with a physician, one fifth with a nurse, and only 11 (0.3 percent) were with a health visitor. Referral and investigation rates were very low. Almost three quarters of elderly patients contacted were functionally independent. The most common diagnoses were osteoarthritis, hypertension, heart failure, and depression. Prescribing levels were relatively high, but people aged over 75 years were given fewer medicines than those aged 65 to 74 years. There is great scope for case finding by general practitioners provided good use is made of each contact. Health visitor case finding or screening would require either a major change in existing work patterns or recruitment of extra staff.

Since 1964 when Williamson and co-workers[1] described the "iceberg of unreported illness" in the elderly, many studies of screening have shown unreported need among these patients.[2-8] It has been suggested that detection of diseases does not ensure effective therapy or any change in the natural history of the disease.[9] Barber and Wallis[10] found beneficial effects of screening in an uncontrolled study. They estimated that screening those aged over 65 years using a health visitor in a practice of 4,000 total patients would take 47 hours each week, or 18 hours if only those aged over 75 years were screened.

In many practices such activities would require changes in work patterns or recruitment of new staff. Such a screening system would strain the resources of a practice and would be unlikely to be started. A system that uses the everyday contacts with patients to maximum advantage, as well as considers the nonattenders, would seem to stand a better chance of success. Anticipatory care as first suggested by Van den Dool[11] might be the way for the future. Anticipatory care requires the health worker (physician, nurse, or health visitor) to focus on problems that might not be recognized by the patient. Routine contacts with patients must therefore be structured so that relevant problems, such as urinary incontinence, falls, immobility, depression, hearing, and visual impairments, are asked about and appropriate management is initiated.

Before a system of detection of patients with early problems using routine contacts can be recommended, it is necessary to examine the current service used by the elderly. Patterns of service use will determine which health worker is in the best position to detect problems among the elderly and which elderly people are in most need of attention

From The Surgery, Derby Road, Borrowash, Derbyshire; the Department of Health Care of the Elderly and the Department of Community Health, Nottingham University Medical School, Queens Medical Centre, Nottingham, England. Requests for reprints should be addressed to Dr. Shah Ebrahim, Department of Clinical Epidemiology and Social Medicine, St. George's Hospital Medical School, London, SW17 ORE, England.

TABLE 1. RELATIONSHIP BETWEEN FUNCTIONAL HEALTH GROUP AND AGE

Functional Health Group	Age Group (years) 65 to 74 No. (%)	75 + No. (%)
I	1,482 (66)	615 (30)
II	429 (19)	662 (32)
III	219 (10)	580 (28)
IV	74 (3)	169 (8)
Not known	40 (2)	45 (2)
Totals	2,244	2,071

and will give estimates of the numbers of elderly people covered by existing services.

This study therefore set out to describe the contacts made in primary health care by the elderly and to consider how a program of anticipatory care might be instituted. Records were made of the functional ability of each person seen, the types of contact, health worker contacted, the diagnoses made, prescriptions issued, and referrals made as a result of each contact.

METHODS

The practice, on the outskirts of Derby, has 6 physicians, 3 attached health visitors, and 2 community nurses. The physicians practice from a purpose-built health center that also provides office and clinic space for other staff. Unlike family physicians in the United States, a substantial part of British physicians' work is spent in visiting patients in their homes, which is done after morning clinics.

Health visitors are qualified in nursing and have at least one year's experience of hospital obstetric nursing. They have also studied a one-year diploma course in preventive aspects of health care. They have a statutory duty to visit nursing mothers and children up to the age of 5 years. They carry out developmental surveillance of children, referring those with developmental delay. Recently, with declining birth rates, some health visitors have become interested in a more active role with the elderly.

Community nurses have nursing training but have chosen to practice in the community rather than in hospitals. Nurses see patients at the health center and also in the patients' homes. They carry out many nursing duties, such as supervising medication (eg, insulin injections), dressing leg ulcers, providing nursing care in the home following early hospital discharge, bathing patients, and providing incontinence aids. Both health visitors and community nurses are employed by local health authorities and work in close collaboration with the practice.

The practice population is predominantly lower middle class and working class. There are 1,860 people over the age of 65 years and of these, 650 are over the age of 75 years. For seven months every contact by the practice with persons aged over 65 years was logged using an encounter form. All contacts were recorded, including repeat prescriptions, after-hours telephone calls, and contacts made with physicians, health visitors, and community nurses. Details of date of birth, sex, diagnoses made, drugs prescribed, residence, and referrals made were recorded. Each patient was assigned by the health worker contacted to a group from I to IV modified from functional groupings described by Williams et al.[7] Those in group I were physically and mentally independent and those in group IV were bedfast with severe incapacitating illness. Group II included people with partially restricted mobility who were able to cope with any illness present. Group III included the housebound where illness or mental deterioration was present and the patient was coping with difficulty.

In addition, the case records of all elderly patients were reviewed to measure the proportion of patients who had been seen. Hospital admissions were reviewed by checking the appropriate case records. Data were checked for internal consistency by cross-checks (eg, patients seen at a clinic visit who were recorded as "bedfast"), and inconsistent forms were returned to the practice for checking. Analyses were carried out using Statistical Package for the Social Sciences.[12]

RESULTS

Eighty-four percent (1,562) of those aged over 65 years were seen in the seven-month period from May to November 1982. There were 4,315 contacts in all, of which 743 (17 percent) were for repeat prescriptions. Average contact rates (excluding repeat prescription requests) during the seven-month period were 1.56 contacts per person for those aged 65 to 74 years and 2.6 contacts for those aged 75 years and over. If these rates are extrapolated, annual contacts per person are 2.68

TABLE 2. RELATIONSHIP BETWEEN FUNCTIONAL HEALTH GROUP AND TYPE OF CONTACT

Health Group	Type of Contact: General Practitioner No. (%)	District Nurse No. (%)	Repeat Prescription No. (%)	Health Visitor No. (%)
I	1,686 (64)	172 (19)	241 (32)	3 (27)
II	578 (22)	278 (30)	230 (31)	3 (27)
III	261 (10)	355 (39)	175 (24)	5 (45)
IV	84 (3)	108 (12)	51 (7)	0 —
Not known	35 (1)	4 —	46 (6)	0 —
Totals	2,644	917	743	11

and 4.45, respectively. Just over one third of contacts were with men. One half were with patients aged 65 to 74 years, and the remainder were with patients aged over 75 years. Nearly 50 percent of all contacts fell into functional group I, and 25 percent, into group II. Almost 20 percent were in group III and only 6 percent were in group IV. Thus, nearly 75 percent were able to do their own shopping, cooking, and housework and had normal mobility. The relationship between functional health group and age is shown in Table 1.

Persons with low functional health were more likely to live in housing with a resident warden calling each day to check whether help was required. Of 2,102 contacts made in group I, only 88 (4 percent) were with persons living in warden-resident housing or state-provided homes for the elderly. In group IV, 72 (30 percent) persons were living in such accommodations. The relationship between functional group and type of health worker contact is shown in Table 2.

More than three quarters of all consultations were with physicians and one fifth were with nurses, whereas health visitors saw only 11 persons (0.3 percent). Overall, one half of the physicians' consultations were home visits, but most of these were with persons aged over 75 years.

Forty-two (1 percent) consultations resulted in admission to hospital, and almost three quarters of these admissions were from functional health groups II through IV. Referrals to the hospital outpatient departments numbered 70 (1.6 percent), of which two thirds were from group I. Only nine consultations with a hospital specialist physician (internist) visiting the patients at home were arranged, all of these consultations being for patients in groups II through IV. Specialist physician home visiting is a common feature of British practice with elderly patients, as it avoids attendance at a hospital clinic, which can often be difficult for the aged and infirm. There were 58 referrals to social welfare services, most (47) from groups II and III. These welfare referrals were for arrangement of domestic help, daily hot meal service, and day center attendance. Referrals to the latter are for patients who are lonely or confused and require support to maintain them in the community. Fifty-nine blood tests were done, only one of which led to a specialist referral. Thirty x-ray films were done, and none resulted in referral. Twelve bacteriology tests were done, only one of which led to outpatient referral. One fifth of all contacts resulted in no prescription being issued. Thirty-five percent were prescribed 1 drug only, 25 percent 2 drugs, 18 percent were taking 3 or 4 drugs, and 2.5 percent were given 5 different drugs. Both men and women aged over 75 years took fewer drugs than did those aged under 75 years.

Tables 3 and 4 display the common diagnoses and drugs prescribed in the practice.

DISCUSSION

Patterns of Contact, Diagnoses, and Prescribing

Estimated annual contact rates were similar to those reported by the Royal College of General Practitioners' morbidity study[13] despite the study period not covering the worst of the winter months. Sixteen percent of those aged over 65

TABLE 3. DRUGS PRESCRIBED AS A PERCENTAGE OF TOTAL PRESCRIPTIONS

Drugs Prescribed	Percentage of Total Prescriptions
Diuretics	13.9
Analgesics	7.6
NSAIDs	6.4
Antibiotics	4.8
Hypnotics	4.6
Tranquilizers	4.3
Beta-blockers	3.6
Digoxin	3.0
Hypotensives	2.2
Potassium supplements	2.1
Laxatives	1.2
Thyroxine	1.1
Quinine bisulphate	0.9

TABLE 4. DIAGNOSES AS A PERCENTAGE OF TOTAL CONSULTATIONS

Diagnoses	Percentage of Total Consultations
Osteoarthritis	16.9
Heart failure	12.7
Hypertension	12.7
Myocardial ischemia	9.0
COPD	7.8
Depression	7.6
Diabetes	5.5
Anxiety	5.4
Anemia	2.9
Dyspepsia	2.7
Insomnia	2.5
Hypothyroid	2.3
Constipation	1.5

years were not seen over the seven-month study period; more were certainly seen over the remainder of the year, but there remain a number of people who in an anticipatory program would have to be approached directly for assessment. In this practice anticipatory assessment would entail seeing about 260 people (that is, 14 percent of those aged over 65 years) who had not been seen for over a year. Postal questionnaires[14] have been developed to screen nonconsulters. It has been shown that nonattenders in this practice have lower levels of ill health than attenders. Therefore, efforts to screen the nonattenders would detect only small numbers of unrecognized problems.

Referrals to social services were common, and as the relationship between physical or mental illness and social failures (ie, not coping, falling, incontinence) is well recognized, closer contact between primary health care teams and social services seems sensible.

The Royal College of General Practitioners' morbidity study[13] showed circulatory problems to be most common among the elderly, and the present study findings were similar, with hypertension and congestive cardiac failure being common. Surprisingly, depression was the third most common diagnosis, perhaps because such patients receive many consultations for an episode of illness.

Diuretics were most commonly prescribed. Antidepressants did not appear in the top 13 drugs used, but hypnotics and tranquilizers were commonly prescribed. It is possible that while depression is recognized as a problem, the response is to prescribe inappropriate medication. Alternatively, diagnosed depression may not be severe enough to merit specific treatment. There has been much recent concern about prescribing for the elderly,[15] and one of the potential benefits of studying patterns of care is that it makes everyone more aware of where problems may be occurring.

Opportunities for Anticipatory Care

One of the most striking findings was the small amount of contact with health visitors. Although such a service does not exist in the United States, health workers using a preventive approach might be recruited from nurses and employed by primary health care teams. The health visitors said that they would all welcome more contact with the elderly but felt that their time was fully occupied with other duties, particularly with children. Any future anticipatory approach could not therefore rely on existing health visitor support (unless there was a redistribution of their work from young to old). Vetter and colleagues,[16] however, based their preventive trial on health visitor intervention; but without a dramatic change in the training and work patterns of health visitors, it is unlikely that other practices could follow their approach.

Just over one half of the district nurse contacts were with patients in groups III and IV, and over one third of repeat prescriptions were for people in these groups. These routine contacts may therefore be used as a basis for anticipatory care, as patients with functional problems are more likely to have remediable diseases. Patients seeing

the district nurse might be routinely assessed for mobility, balance, continence, hearing, vision, depressed mood, foot troubles, and other problems either by the nurse herself or by self-administered questionnaire. Patients receiving repeat prescriptions might, as part of a review policy, also be questioned about potentially remediable problems using a postal questionnaire.

The majority of work with the elderly is, however, done by the family physician, who is in a good position to look for and manage the problems already mentioned. The family physician in the United States may have an advantage over his or her British counterpart, since home visiting is not part of the established American service. In Britain much time is spent traveling to and assessing elderly patients at home. This time might be better spent asking about and arranging appropriate therapy for disabilities common to elderly patients. In this practice, the next step toward anticipatory care for the elderly is the development of an encounter form (for routine use by physicians and nurses) recording each patient's health status.

The detection and treatment of problems may or may not result in improvements in quality of life and well-being of the elderly. Vetter and colleagues[16,17] have indicated in their trial that the efficacy of such interventions may be dependent on the health worker making the assessments. Further randomized trials of different types of intervention are necessary, but it is essential that the interventions are capable of being used, if successful, at low cost in the majority of practices.

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