Consultation-based screening of the elderly in general practice: a pilot study

CHARLES B. FREER, MClSc, MRCGP
Senior Lecturer in Primary Medical Care, University of Southampton

SUMMARY. The lack of evidence to support formal annual screening of all older people does not weaken arguments for a preventive and anticipatory component to primary care. A number of short screening schedules for use by nurses or volunteers or for self-completion by patients have been developed. Patients 'failing' the screening stage are then fully assessed. This paper describes the design and pilot study of a brief anticipatory care system which can be integrated into routine general practice as the first stage of the two-stage process. It was found that only about 28 of the 102 patients screened required follow up and in general the doctors found the system easy to administer during normal surgery sessions.

Introduction

THE pioneering work of Anderson and Cowan[1] led to widespread support for the regular screening of all elderly people but despite 30 years of experience and research no consistent evidence of the benefits of a universal approach to geriatric screening has emerged.[2] In addition, regular check-ups for all older people would require a massive and unrealistic increase in current primary care resources.[3]

Recent developments in anticipatory care of the elderly have concentrated on finding more efficient and cost-effective methods of detecting those individuals with hidden but treatable problems. Barber has devised a two-stage process involving initial screening of all elderly patients using a brief postal questionnaire with a full assessment of those 'failing' the screening stage.[4] Initial results were disappointing, as approximately 80% of the screened population required follow-up. However, since then, the questionnaire has been modified with a reduction in the numbers of patients requiring follow-up.[5,6]

In almost all current projects employing the two-stage process the initial questionnaire is administered by a nurse or volunteer or is sent by post but the high contact rate between British general practitioners and the elderly offers the opportunity to identify during routine contacts those individuals who would benefit from assessment. On average those over 75-year-old consult their general practitioner 6.5 times each year[7] and over 90% of this age group see their general practitioner at least once a year.[8,9] The elderly who attend infrequently or not at all would be missed by a system based on routine consultations, but in the last three years a series of studies have shown that such patients are generally fit and well.[8,10,11]

This paper describes the design and pilot study of a flow-sheet for use during routine contacts with older patients as the first stage of the two-stage screening process.

Design of a consultation-based screening flow-sheet

The intention was to design a system that was brief and compatible with busy day-to-day practice yet capable of predicting which patients were likely to benefit from more detailed assessment.

The flow-sheet is a modification of Barber's original postal questionnaire[4] which consisted of nine questions:

1. Do you live on your own?
2. Are you without a relative you could call on for help?
3. Do you depend on someone for help?
4. Are there many days when you are unable to have a hot meal?
5. Are you confined to your home through ill-health?
6. Is there anything about your health causing you concern or difficulty?
7. Do you have difficulty with vision?
8. Do you have difficulty with hearing?
9. Have you been in hospital during the past year?

Taylor and Ford demonstrated that by using four of the nine questions (questions 3,5,6 and 8) 37% of the elderly population would require follow-up assessment (as opposed to 80% in Barber's original study) with only a small reduction in the case-finding efficiency.[5] Russell (Southampton University, 1985, unpublished results) confirmed these findings but gave some support for the retention of question 7. Both studies found that question 1 had the highest predictive value. Questions 3,5,6,7 and 8 were included in the flow-sheet (Figure 1). A 'yes' answer to any question scores one and a total score of one or more indicates that further assessment is necessary.

Some colleagues felt that it might be difficult to move abruptly to the screening questions and spaces were therefore provided on the flow-sheet for blood pressure and pulse measurements as it was felt that these might help to introduce screening into the routine business of the consultation. Measuring blood pressure also provides some physical contact with the patient and questions can easily be asked while this is being done. A further question was included, 'Compared with this time last year, how would you rate your health — the same, better or worse?' This question was not included in previous studies but it was felt that this might be a useful introductory question and provide continuity with past health.

The flow-sheet is intended for use in the surgery or the patient's home, but in the surgery the question about confinement to the home will probably be inappropriate. There are a number of blank spaces which can be used for other items of information that the general practitioner or other members of the team might want to collect. The flow-sheet is designed to fit into a medical record envelope but can also be kept in A4 records.

Pilot study

Method

The pilot study of the flow-sheet was carried out at Aldermoor Health Centre, a National Health Service practice of approximately 8000 patients (10% aged 65 years or over). Seven general practitioners, all with university teaching and research duties, participated in the study but two part-time general practitioners and the practice trainee were not involved.

The flow-sheet and its use were explained at an initial briefing and the doctors given a supply of flow-sheets and a list of the questions with written instructions. The participating doctors were requested to complete flow sheets on patients aged 65 years or over seen during normal surgery hours and they were sent regular written reminders of the study. The flow sheets are intended to be completed about once a year and not on every

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Case-finding flow-sheet for the elderly							
Date							
Blood pressure							
Pulse							
Change in health status							
Depend on help							
Confined to home							
Concern/difficulty							
Vision							
Hearing							
Total score							

Figure 1. *Consultation-based screening flow-sheet.*

contact. Patients attending frequently with chronic health problems are not likely to be in need of screening. Screening is also inappropriate when patients are acutely ill or distressed.

The pilot study ran from 1 November 1986 to 28 February 1987. Completed flow sheets were attached to the patients' records and passed on to the author. Follow-up for more detailed assessment was not included in the pilot study.

Results

During the study period flow-sheets were completed for 102 patients. Their age–sex distribution closely matched that of the practice as a whole.

Flow sheet scores. Of the 102 patients 53 scored 0, 32 scored 1, 11 scored 2, five scored 3 and one scored 4. Therefore, using the criteria suggested by Barber, 49 of the study patients required follow-up for assessment. However, for 21 of these patients the doctor administering the questionnaire felt that the positive answer was of no functional significance; for example, when a patient admitted to having trouble with hearing which had been present for about 10 years and was not causing any difficulties or dependency needs. Thus follow-up was considered to be necessary for only 28 of the 102 patients. Seventy-three patients said their health was the same as one year ago, 15 said it was better and 14 worse. Blood pressure was recorded for 56 patients.

Participant feedback. In general, the doctors found the flow-sheet relatively easy to administer during normal surgery sessions. They reported that patients seemed to have no difficulties answering the questions but the doctors made some comments about the questions and the assessment of answers. The question 'Is there anything about your health causing you concern or difficulty?' created some problems. For example, if someone had experienced back pain for about a week, it was clearly causing them some difficulty and concern but the question is seeking to elicit a more longstanding difficulty. There also seemed to be occasional difficulties in the interpretation of the questions about vision and hearing. Many older people have had these problems for a number of years and have had glasses or hearing aids prescribed. Again, it was necessary to ensure that the question was understood to mean present difficulty and not past problems.

Discussion

This pilot study has provided useful information and led to the clarification of the use of individual questions.

The number of patients recruited was somewhat disappointing but the study period included the Christmas holiday and there were eight concurrent staff or student projects competing for study patients. Nevertheless if this rate of uptake had continued for 12 months, 50% of all patients aged 65 years or over would have had a completed flow-sheet. The system involved minimal use of practice resources, as only the participating doctors were involved in recruiting patients. It has now been decided that the receptionists should attach a flow-sheet to the front of the records of all patients aged 65 years or over when records are being prepared for surgery sessions.

The results of this pilot study have to be interpreted with caution but it was encouraging to find that less than 30% of screened patients might require follow-up for more detailed assessment. This is a marked improvement on Barber's original work and is more compatible with the conditions and workload of busy general practice. It also suggests a possible advantage of a consultation-based rather than a postal first stage, namely that the doctor administering the questionnaire can reduce the number of false positives obtained from postal screening. If these results were reproduced in a formal study, they would provide support for an important advance on existing systems of anticipatory care of the elderly in general practice.

In the absence of any consistent support for universal geriatric screening, preventive primary care of the elderly is unlikely to move beyond accepted theory and good intentions until effective and efficient alternative methods are available. The results of this small pilot study are encouraging and would appear to justify a large-scale study to test the use of consultation-based screening of the elderly in general practice.

References

1. Anderson WF, Cowan NR. Consultative health centre for older people: the Rutherglen experiment. *Lancet* 1955; **2:** 239-240.
2. Freer CB. Geriatric screening: a reappraisal of preventive strategies in the care of the elderly. *J R Coll Gen Pract* 1985; **35:** 288-290.
3. Barber JH, Wallis JB. The effects of a system of geriatric screening and assessment on general practice workload. *Health Bull (Edinb)* 1982; **40:** 125.
4. Barber JH, Wallis JB, McKeating E. A postal screening questionnaire in preventive geriatric care. *J R Coll Gen Pract* 1980; **30:** 49-51.
5. Taylor R, Ford G, Barber JH. *The elderly at risk: a critical review of problems in screening and case-finding.* Mitcham: Age Concern, 1983.
6. Taylor RC, Buckley EG (eds). *Preventive care of the elderly: a review of current developments. Occasional paper 35.* London: Royal College of General Practitioners, 1987.
7. Office of Population Censuses and Survey, Social Surveys Division. *General household survey 1980.* London: HMSO, 1982.
8. Williams EI. Characteristics of patients over 75 not seen during one year in general practice. *Br Med J* 1984; **288:** 119-121.
9. Freer CB. Care of the elderly: old myths. *Lancet* 1985; **1:** 268-269.
10. Ebrahim S, Hedley R, Sheldon M. Low levels of ill health among elderly non-consulters in general practice. *Br Med J* 1984; **289:** 1273-1275.
11. Williams ES, Barley NH. Old people not known to the general practitioner: low risk group. *Br Med J* 1985; **291:** 251-254.

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Address for correspondence
Dr C.B. Freer, Aldermoor Health Centre, Aldermoor Close, Southampton SO1 6ST.