Geriatric screening: a reappraisal of preventive strategies in the care of the elderly

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Introduction

SINCE the public health campaigns to tackle tuberculosis over 30 years ago screening has been widely used as a technique for the detection of hidden disease in an apparently healthy population. One example is the extensive activity in the field of geriatric screening. As the number and proportion of older people in many countries are increasing it seems timely to reappraise screening and other secondary preventive strategies used to reduce the impact of health problems in this population.

Geriatric screening

Modern interest in geriatric screening dates from the Rutherglen experiment initiated by Anderson and Cowan in 1952.[1] Since then, with a few exceptions,[2,3] studies have shown a high prevalence of unreported physical, social and psychological problems in the elderly population.[4-9] This early descriptive work led to studies of the subsequent interventions to deal with the problems which had been detected and several studies reported reduced prevalence.[10-12] Despite this interest no convincing evidence has emerged to demonstrate that health and economic benefits may be obtained from geriatric screening and one study of general practitioners in north-west England revealed that only about 10 per cent of these doctors attempted any form of screening for their older patients.[13] This apparent failure of geriatric screening and its unpopularity justify closer analysis. The literature on this topic is confusing because of variations in the meaning and usage of some terms. In this paper screening is defined as a doctor-initiated patient contact used to identify asymptomatic or unreported health problems. Case-finding is defined as the detection of hidden problems during routine medical care — sometimes known as opportunistic case-finding.

Problems with geriatric screening

For any system to succeed as a routine element of health care it has to be appealing, feasible and effective. The principle that prevention is better than cure is eminently sensible and virtually guarantees the appeal of any preventive strategy including screening; but consideration of the practical implications begins to weaken the case for geriatric screening.

Barber has estimated that to set up a full screening programme for those patients aged over 75 years old in a Glasgow practice with a total population of 4000 patients would require 18 hours of health visitor time per week for the first year and 11 hours per week for subsequent years.[14] In the absence of any other published evidence to challenge this information or suggesting less expensive screening methods, it seems likely that regular screening of all patients in this age group is beyond the scope of existing National Health Service resources. One of the criteria of screening programmes — that there should be an asymptomatic or early symptomatic stage — is difficult to satisfy for geriatric screening.[15] Screening is designed to detect individuals who may have a disease such as hypertension or the early stages of cervical cancer. Many of the problems experienced by individuals over 65 or 75 years of age are unlikely to be so easily defined or identified. When health problems exist they frequently occur together and overlap with the ageing process, the characteristics of which vary in severity, timing and sequence from individual to individual. The evolution of problems peculiar to this age group does not have a distinct natural history and there is little information on this.

The effectiveness of geriatric screening is perhaps the least well-established of all types of screening. Three randomized case control studies of socio-medical assessments and follow-up studies over two to three years have been published. Tulloch and Moore failed to demonstrate that geriatric screening had significant effects on the prevalence of socio-economic, functional and medical disorders affecting health but the study group increased their use of health and social services and the expected length of stay in hospital for any admission was reduced.[16] Vetter and colleagues found no differences in physical disability, anxiety or depression but a significant reduction in mortality and an increased use of services in their urban study group; these differences were not found in the rural study group.[17] A recent Danish study found that geriatric screening resulted in less hospitalization but no reduction in the number of nursing home admissions, a reduction in mortality but no difference in general practitioner contacts in their study group.[18]

Together these results[16-18] do not provide any solid support for the additional surveillance of all older patients but to some extent this may reflect the choice of well-defined outcomes such as mortality, general practice attendance and hospital admission to establish effectiveness. There are likely to be other less easily measured effects such as patients' satisfaction with check-ups — these also provide opportunities for improving the communication between patients and members of the primary health care team. These aspects of assessment are discussed in the Danish paper[18] and Tulloch and Moore also record their impression of an improvement in patient morale and self-esteem as a result of the special attention of a screening visit.[16] Such components are difficult to measure and cost but the provisions for senior citizens by a health care system should not only reflect cost-effectiveness but also the values of society.

The fact that universal and regular screening of older people is ineffective or unfeasible has led to the consideration of alternative approaches.

Selective geriatric screening

One way to tackle the logistic problems of regular screening of all older patients is to establish criteria which define a subpopulation which would benefit most from secondary prevention. Living alone, recent discharge from hospital and recent bereavement are among a number of factors widely quoted in the geriatric literature as conferring high risk. However, a detailed study by the Medical Research Council Medical Sociology Unit in Aberdeen has concluded that given current knowledge the

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selection of a subset of the elderly using such characteristics is not yet justified as a routine procedure.[19] One problem may be the validity and sensitivity of risk factors in older people; for example, although it is widely believed that living alone is a high risk factor it may be that when such individuals begin to fail the health or social services are involved quickly, whereas the support provided by relatives for failing elderly individuals living with families may in fact mean that their level of immobility and dependency is very much greater when they do present.

Barber has developed a postal questionnaire to determine which elderly patients in the community require and would benefit from a home visit for more detailed assessment and as this is further refined and tested it may prove to be of value.[20]

Case-finding

It is unlikely that any other physicians in the world have such regular contact with their elderly patients as do British general practitioners. Williams has reported that 90 per cent of those over 75 years of age in his study practices were seen at least once a year by the general practitioner or some other member of the primary health care team.[21] A similar contact rate has been confirmed in the Aldermoor Health Centre, Southampton. This provides the potential for combining prevention with routine care instead of the additional workload of special screening clinics or visits. It would be unrealistic, however, to ignore the problems of such a major change in the way that most general practitioners work. There are some immediate practical problems. While the limitations of time in the general practice consultation should not be stressed too greatly, it is unreasonable to expect the busy general practitioner to add five or 10 minutes to each appointment with elderly patients. A further potential problem with this approach is that the elderly patient consulting the doctor with a problem is likely to be anxious about that problem and this anxiety may result in unwillingness on the part of the patient to discuss topics which are unrelated to the presenting problem. It is also important that the doctor should not appear to be attaching more importance to his agenda than to the agenda of the patient. Finally, it is known that any patient should not be overloaded with information during a doctor's visit and an older person may have even greater difficulty in dealing with additional topics. Case-finding would miss the 10 per cent or so of those aged over 75 years who are not seen in any one year, although a recent study from Nottingham does not see this as a problem since non-attenders are likely to be fit.[22]

Future directions

A review of the literature and discussion with practitioners who have a special interest in this area indicates that for the present more attention will be directed to the development of opportunistic case-finding than screening programmes in secondary preventive care of the elderly in general practice. In addition to the practical problems already discussed the development of opportunistic case-finding will benefit from attention to two other aspects.

Functional orientation

Elderly people with arthritis visiting their doctor are much more likely to have their level of pain and use of medication assessed than their ability to wash, move about the house freely, go out shopping or attend church. In the same way many screening and assessment programmes have tended to concentrate on asymptomatic deviations from the normal range or the existence of an abnormality, rather than on the impact of these on the ability of the individual to function normally. Any assessment of older patients will reveal undetected abnormalities. However, discovering that someone living alone does not have a home-help or has untreated corns is quite different from showing that these are causing significant problems or that without intervention problems would result. Too many published studies have provided resources for identified abnormalities and described this as a successful outcome without establishing that problems exist. Preventive strategies whether research based or for routine clinical use should be judged on whether they produce functional benefit or improve the quality of life of the person in some other way.

A number of functional and disability scales are available to assess older patients.[23-25] Most are time consuming and the availability of briefer check-lists of functional status would encourage opportunistic case-finding.

Improved education of elderly patients and their carers

In recent years the level of self-care has increased and patients have become more involved in the management of their illnesses. It is unrealistic to believe that doctors should bear all the responsibility for the detection of problems in their patients and meaningful changes require that patients and their carers are better informed about the health problems of elderly people and the use of health and other services. Serious illness is unlikely to be asymptomatic in older people but a remediable problem can remain hidden from the doctor because the patient may consider it to be part of the ageing process, insoluble or not worth treating or the patient may feel that the doctor is too busy dealing with more important problems.

The better informed the patient, the greater the preventive potential of routine medical care.

Conclusion

Lack of evidence to support the widespread implementation of geriatric screening in routine primary medical care should not be allowed to diminish support and enthusiasm for the preventive and anticipatory care of older patients, nor should it be allowed to diminish recognition of the important preventive benefits of the existing acute and chronic care of older people in British general practice. At present general practitioners and their older patients would benefit from routine consultations which placed more emphasis on the functional ability of the patient and which included the anticipation of possible problems. In addition, patients should become increasingly involved in their own care. Researchers should direct their attention to finding practical methods and strategies which would integrate these approaches into routine general practice.

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Acknowledgements

In the preparation of this work I acknowledge the support of Drs G. Almind, J.A. Muir Gray and G. Warshaw with whom I worked in an international study group supported by the W.K. Kellogg Foundation.

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Alcoholic liver disease in the elderly

The authors studied 34 patients with alcoholic liver disease presenting for the first time over the age of 60 years. Symptoms were usually non-specific including malaise (62 per cent), anorexia (41 per cent) and abdominal pain (38 per cent). The most prominent sign was hepatomegaly (79 per cent). Seventy-nine per cent of the patients had established cirrhosis at the time of presentation. For this group the prognosis was very poor, 48 per cent died within one year of presentation.

Source: Woodhouse KW, James OFW. Alcoholic liver disease in the elderly: presentation and outcome. *Age Ageing* 1985; **14:** 113-118.

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