Growing old: A country practice survey

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IN a report of a two-day clinic held in 1967 during which nearly 800 of our patients were screened (Evans, Wilkes and Dalrymple-Smith 1969) certain conclusions were drawn. These were applicable to patients whose average age was 48 years. We wished to see if our findings would be greatly different with older patients and if there was much important treatable disease among the old people that we did not know about. We also wished to see if the 150 or so patients on our chronic sick visiting list were more ill than their contemporaries or merely more dependent. Finally, we wished to discover something of the attitudes and social problems of ageing in a rural area.

Method

We therefore held a screening clinic for the over 65's, organized to run at about a quarter of the speed of the previous clinic, with each patient seen by appointment and with a taxi service organized by volunteers for all those who needed it. The range of tests was also modified for the older age-group and comprised weight, blood pressure, Wright peak flow rate, cough, sputum and smoking history, emotional stability, a full ophthalmic assessment including fundoscopy and tonometry, microscopy of midstream urine specimens, examination of peripheral joints and chiropody needs, a dental examination and questionnaire, a standard 6-lead electrocardiograph, and blood for haemoglobin, sugar, urea, uric acid, cholesterol and various other estimations including, where indicated, ascorbic acid, vitamin B_{12} and folic acid. A standardized brief social interview concluded the session.

One hundred and seventy patients were screened in the two half-days giving us about the expected acceptance rate of 55 per cent (Scott and Robertson 1968). There was a marked increase in refusals with increasing age. For obvious reasons the selection of patients could not be fully randomized. We had to exclude the severely demented or ill. To economize on our taxi facilities a few patients from isolated areas were excluded. We wished to examine approximately equal numbers of males and females, although from the age-sex register our over 65's contain 1.4 females to one male, and in the over 80's the female to male ratio is 2:1. We also wanted about half on our chronic sick list and half not. We do not think that these factors greatly invalidate our findings. The sample contained a quarter of all our registered patients aged 65 and over and was made up of 81 males and 89 females.

Social class, mobility and health

Well over half the sample were from social classes IV and V. The younger commuters of higher social class who have of recent years moved into our area have altered the class distribution of the practice (table I), but they have not yet had time to alter the basically static nature of the older population. Of our 170, 32 per cent were living less than five miles from their birthplace, 40 per cent were living more than five but less than 20 miles from their birthplace, and only 28 per cent were from further afield. This

accords well with the Peak District Survey (West Derbyshire Medical Society 1966) in which 40 per cent of the population had been resident in the area for over 30 years and only 16 per cent of the adults for less than ten years. The percentage of ill patients was constant at about 36 per cent in all social classes.

TABLE I
OLD PEOPLE SCREENING CLINIC: ATTENDANCE BY SEX AND SOCIAL CLASS

Social class	*I*	*II*	*III*	*IV*	*V*
Males	2	20	14	19	26
Females	10	12	15	22	30
TOTALS (percentages)	12 (*7*)	32 (*19*)	29 (*17*)	41 (*24*)	56 (*33*)
1967 Clinic percentages (average age 48 years)	*11*	*16*	*41*	*22*	*10*

Anaemia. We found only seven patients (4 per cent) whose haemoglobin was less than 12G. Two were known cases of Addisonian anaemia and these were both old ladies in their eighties. Of the others, one was arteriosclerotic, one was a known carcinoma of pancreas since dead, one is now known to have been suffering from osteomyelitis of spine, one was a male with a past history of iron-deficiency anaemia and one patient–symptomless, but with the lowest haemoglobin at 11.4G—was a doctor's daughter living alone and who admitted that she had not been looking after herself properly. Her stools contained no occult blood and she has responded well to oral iron. We, therefore, failed to find any important pathology or severe anaemia as a result of this investigation. We were reminded of the importance of checking on those with a past history of recurrent iron-deficiency (Fry 1966) and that properly treated cases of pernicious anaemia may also tend to become iron-deficient.

Incidentally although four known cases of pernicious anaemia were included in the sample and despite over a dozen requests for vitamin B_{12} and folic acid estimations on clinical grounds, mainly from the dentists, no new cases of B_{12} or folic acid deficiency were found.

Weight. Ten women and six men (9 per cent of the total attendance) were 20 per cent or more overweight. This compares with six per cent of the younger 1967 clinic using the same standard tables of the Metropolitan Insurance Company. Obese patients were slightly outnumbered by the thin, for eleven females and eight males (11 per cent of the total) were 20 per cent or more underweight. These were made up of six healthy, six intermediate and seven on the chronically-ill list. The overweight had only two healthy, three intermediate and no less than eleven chronically ill.

Diabetes. Six known diabetics were included in the sample, one of whom was a defaulter, badly in need of restabilization. Four other random blood sugars were high and led to glucose tolerance tests and the discovery of two new cases of diabetes. These were both females around 80 years of age who required only dietetic advice for satisfactory control.

Urine microscopy. Twenty-seven patients had more than ten WBC's/cmm of urine but when the health visitor took second midstream urine specimens to check, 12 of these had no detectable abnormality. The incidence of demonstrated urinary infection in the sample was thus nine per cent. Eight of these cleared rapidly with treatment and eight were known cases of hypertension or renal disease, some of whom had been on treatment for years.

Emotional stability. Using a brief personality screening test (Orme 1965) we

found only three (1.7 per cent) abnormal scores. This compares with the four per cent incidence found in the 1967 clinic and supports our everyday experience that neurotic behaviour-patterns are more characteristic of the young and middle-aged than of the elderly. The three abnormal scores were all confirmed by our knowledge of the patients, two being unstable personalities and the third grossly disturbed.

With this low percentage of abnormal scores we had doubts about the reliability of the test in gauging our old peoples' emotional vulnerability. We used the same cut-off point between normal and abnormal (18) as in our previous survey. In this test the higher the score the more nearly the score approaches the abnormal of 18 or more. We found a median consultation rate of only three per year of those with a score of under 12, but with those scoring 12 or more the median consultation rate was seven. We feel this tends to confirm the validity of the test which has been discussed more fully elsewhere. (Orme, Kerry and Wilkes 1970).

Cardiovascular disease. Eleven patients (seven per cent) had diastolic pressures of 120 mms or more. Of these two had had myocardial infarcts and seven were on treatment.

Of the electrocardiographs no less than 44 (27 per cent) showed a pattern suggestive of a posterior infarct. Three (1.5 per cent) showed other infarct patterns. Fifteen (nine per cent) showed hypertensive changes, another six (three per cent) showed various conduction defects, 20 (12 per cent) showed other ischaemic changes and only three (1.5 per cent) showed cor pulmonale.

This means that of 166 ECG's taken 91 or 54 per cent were abnormal and 75 (46 per cent) normal tracings. Yet despite this high incidence four of the 11 hypertensives had normal ECG's and of the two infarcts occurring shortly after the clinic one had a normal ECG and the other—fatal—was only possibly ischaemic.

One patient had retinal haemorrhages, a blood pressure of 165/130 and complained of vertigo during the screening. He left the clinic already on treatment. His ECG was normal.

Respiratory disease and smoking. Forty-one females and nine males (30 per cent of the attendance) had Wright peak flow rates of 195 or less. Only 15 (11 females, four males) of this 50 smoked. Thirty-four (20 per cent of the total) had chronic cough or sputum—this compares with 13 per cent in the younger 1967 clinic. Evidence of the rôle of smoking in the exacerbation of chronic chest disease is afforded by the fact that over two thirds of the smokers had chronic cough or sputum but only one third of the non-smokers. There was no significant difference in the average incidence of smoking (24 per cent) with social class.

Eye problems. It was agreed that the routine degenerative changes of the eye should be noted when prominent but that attention should be paid only to important pathological changes.

In 54 patients (32 per cent) definite visual defects of some importance were seen, and in addition 30 patients (18 per cent) had lens opacities that were severe in five cases. No fewer than 13 patients (seven per cent) were referred because of high tension or cupped discs. After follow-up examinations were completed and although some of the ocular hypertensives are on yearly follow-up, not a single new case of glaucoma has been discovered (Perkins 1965).

There was no shortage of other ocular pathology. Nine patients showed marked vascular changes, eight had macular degeneration, two had old choroiditis and three were seen to be diabetic.

Peripheral joints. Our rheumatologist colleague made note of arthritic changes but only recommended treatment in the presence of great pain or disability. By these criteria ten cases of severe osteoarthritis (six per cent of the attendance) were diagnosed

and only two of rheumatoid arthritis. Of the more severe osteoarthritics, knees (five) and hips (four) and hands (four) were the most frequently affected. Treatment was recommended for three patients. One was under treatment and the other two have since derived some benefit from their treatment.

Chiropody. Although the old people obviously looked after themselves well—we saw only one pair of really dirty feet, and no nails were longer than 2½ inches—it was clear that chiropody was needed on a large scale. Twenty-six patients had corns and callosities, seven needed attention to their nails, 32 (19 per cent of the total) had a disability due to their feet and 70 (41 per cent) needed some form of chiropodial treatment. Many were already having care from a chiropodist but this is not easily arranged in a scattered rural area and is an essential expense for many pensioners. The size of the problem is shown by the incidence of some common conditions; three per cent had hallux rigidus, seven per cent claw toes, eight per cent onychogryphosis and 22 per cent hallux valgus. Yet our chiropodist thought the general standard better than would be expected in an industrial area. Forty-one per cent of the women had a foot disability and there was no correlation with age or social class. Sixteen per cent of men had a foot disability, but the incidence showed a distinctive class distribution: I nil per cent; II six per cent; III 15 per cent; IV 33 per cent; V 15 per cent.

Dental examination. Ten (six per cent) still had their own teeth and no dentures. Two (one per cent) had neither teeth nor dentures. One edentulous patient had only a top denture and so was classed as one of the 51 patients (30 per cent) who were using unsatisfactory dentures. One hundred and seven (63 per cent) were wearing satisfactory dentures. Two who had dentures confessed they did not use them at meals but 156 (92 per cent) used dentures for eating.

Although treatment was to be recommended only where there was gross and obvious need, 19 patients (11 per cent) were classed as in need of dental treatment. Upper social classes tend to have better dental hygiene, but age seems more important than class. In the over 80's 45 per cent of the men and 26 per cent of the women had fair or poor oral efficiency, compared with 23 per cent and 32 per cent for the under 70's.

Biochemistry. The levels of blood urea, cholesterol, uric acid and ascorbic acid are tabulated (tables II, III, IV and V). Seventy per cent of the patients had cholesterol levels of less than 300 mg and of the five who had cholesterol levels of over 400 mg per

TABLE II
BLOOD CHOLESTEROL

	Males No.	%	*Females* No.	%
<250 mg ..	43	*58*	33	*40*
250—299 mg ..	21	*28*	22	*26*
300—400 mg ..	7	*9*	26	*31*
> 400 mg ..	3	*4*	2	*2*

TABLE III
BLOOD UREA

	Males No.	%	*Females* No.	%
<49 mg	58	*74*	69	*81*
50—59 mg	17	*22*	10	*12*
60 mg+	3	*4*	6	*7*

cent, four had hypertension or ischaemic heart disease. On the other hand the nine patients who had a blood urea of over 60mg per cent are somewhat frail but no more ill than when the clinic was held. Eleven patients had uric acid levels of 8.5 mg or higher. Three were healthy, one intermediate and seven were ill, five from cardiovascular disease.

Sixty ascorbic acid estimations were carried out. Of those over 80 years of age only one patient had a level of less than ten mg per cent and we discovered that he had

chronic lymphatic leukaemia. Six other patients had levels between 6.5 and 9.8 mg per cent. Of those, one was a diabetic, one was a severe osteoarthritic with obvious shopping difficulties, and the other four all lived alone.

So far as categories of health are concerned, of the 15 patients with levels of 15mg per cent and below, five were healthy, five intermediate and five ill. No clinical scurvy was seen.

Some social factors

Seven (four per cent) admitted to three or fewer cooked meals per week. Five of these lived alone. Thirty-four (20 per cent) admitted to some difficulty in getting about,

TABLE IV
URIC ACID

	Male No.	%	*Female* No.	%
<7 mg	51	*67*	70	*84*
7—9 mg	21	*28*	12	*15*
9 mg+	4	*5*	1	*1*

TABLE V
ASCORBIC ACID LEVELS (MG PER CENT)

	<10	*10—*	*20—*	*30+*
Males ..	2	7	13	2
Females ..	5	14	5	12
TOTAL ..	7	21	18	14

TABLE VI

No. of consultations per year	*All patients*	*Chronic sick*	*Non-chronic*
0	34	11 *13*	23 *28*
1—4..	64	26 *30*	38 *45*
5—9..	46	29 *34*	17 *20*
10+..	26	20 *23*	6 *7*
Totals	170	86 *100*	84 *100*

but 85 per cent said they had no special problems about growing old. Of the 26 (15 per cent) who admitted they had problems, the commonest were deafness (six), giddiness (three), loneliness (three), difficulty in getting about (two), need for chiropody (two), worry about close relatives (two) and poor sight (two).

Loneliness was probably under-reported, though one psychopathic personality who claimed to have no visitors lives on a council estate where relatives and neighbours are always dropping in. She is included in the six (three per cent) who said they never had visitors; we thought this was probably true of the other five. Forty-four (26 per cent) said they had only few visitors, 77 (45 per cent) several visitors, and 43 (26 per cent) reported many visitors.

Health grading. Of the total attendance we classed 39 per cent as healthy for their age, 25 per cent as intermediate and 36 per cent as ill. Forty-five per cent were on the chronic sick list and of these two per cent were healthy and 30 per cent were ill. Of the 51 per cent not on the chronic list 35 per cent were healthy and only four per cent ill. Confirmatory evidence of the difference is given in the table of consultation rates (table VI). Twenty-three per cent of the chronic sick were seen by us ten times or more in the year compared to only seven per cent of those not on the chronic sick list. Thus the chronic sick list seems genuinely based on fact rather than habit.

Self-medication. We were interested to know what drugs and medicines were still being bought at the grocer's or chemist's shop. Thirty-eight (22 per cent) admitted to this habit and some analgesic aspirin-containing mixture was easily the commonest group of preparations, being mentioned 24 times. Laxatives were mentioned eight times, antacids four times, cough mixtures five times and miscellaneous preparations also five times. Whether the absence from this list of tonic preparations or medicated wines is due to a change of outlook, a failure to class them as medicines or just diffidence we cannot say.

Discussion

Five who attended the clinic have since died and four of them we had classed as ill. One was the woman with a carcinoma of pancreas who was found to be 27 per cent below her expected weight, with an ischaemic ECG, infected urine and a blood urea of 54 mg per cent. The second woman was well into her eighties, arteriosclerotic, a known Addisonian anaemic who died suddenly of a stroke. She was 34 per cent below her expected weight, mildly anaemic, with an ischaemic ECG and a Wright peak flow rate of 140. Of the two ill men, one was an old ischaemic heart case with cataract, ECG abnormalities and bad feet. He died from a gastric carcinoma. The other man had angina and cardiac failure of recent onset and died suddenly at work from a myocardial infarct. At the clinic we had noted a severely osteoarthritic hip and an old posterior infarct on ECG.

The one patient (a male) whom we classed as healthy died from a myocardial infarct only a few weeks after the clinic. In his case we had noted a left lens opacity, a weight 35 per cent more than expected, a blood urea of 50 mg per cent, a Wright peak flow rate of 180 and a possibly ischaemic ECG. With all this we were somewhat optimistic to class him as healthy and we were perhaps too much influenced by the fact that he had not consulted us at all in the preceding 12 months.

As the years go by we shall have much more of this sort of material to analyse, but it does seem that a fair idea of what is going on can best be achieved by a combination of routine consultations and clinics of this type.

Routine consultations alone cannot do it, for we saw 38 per cent of the ill less than five times in the year and only saw 25 per cent of them ten or more times. Fifty-seven per cent of the total attendance saw us less than five times in the year and 20 per cent were not seen at all (table VI). The average number of consultations for the whole attendance was 4.5 per year.

We have found comparatively little evidence of important unknown disease among the old. One case may well be worth reporting. A 72-year-old man had been losing weight, and his protein-bound iodine was found to be extremely high at 16 μg. Clinically he seemed well, but we recalled him several months later for review. We found no abnormality on reassessment, his pulse being slow and regular. We decided that the weight loss was due to the increased physical activity following on retirement, and the high protein-bound iodine due to the use of iodized salt, although we had never before met with such a high figure from this cause. A year later we admitted this patient urgently to hospital because of the acute onset of uncontrollable atrial fibrillation and cardiac failure, with a pleural effusion. On admission his protein-bound iodine was 14 μg and quite clearly the diagnosis was thyrotoxicosis. He has responded well to treatment.

When the same tests were used in the two screening clinics we found a good correlation of results despite the age-differences. For example, screening for anaemia and diabetes were comparatively unproductive and the ECG screening of the elderly was fascinating but of doubtful prognostic value. We believe we gave reassurance to many courageous but anxious people who do not come to see us and the epidemio-

logists must somehow allow for this in their value judgments of this sort of exercise. We enjoyed the interdisciplinary approach; and perhaps the most important lesson was the composite picture we built up of our elderly patients—of a stable, stoical, locally-born person who wears dentures, has a visual disability but whose commonest complaint is of deafness, who has degenerative cardiovascular disease but has an equal chance of being classed as ill or healthy, who sees the doctor less than five times a year, and who needs a chiropodist.

Summary

One hundred and seventy elderly patients were screened. Twenty per cent had chronic cough and sputum. Fifty per cent had eye pathology, six per cent had severe osteoarthritis and nine per cent had infected urine. Seven per cent were hypertensive and 54 per cent had an abnormal ECG. Ninety-two per cent wore dentures and 11 per cent needed dental treatment. Forty-one per cent needed chiropody. Thirty-two per cent had no or few visitors. Twenty per cent had difficulty in getting about. Thirty-six per cent were ill. Fifty-seven per cent saw us less than five times in the year, and twenty per cent were not seen at all.

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Fascioliasis—a large outbreak. E. W. HARDMAN, M.B., Ch.B., R. L. H. JONES, M.B., B.Ch. and A. H. DAVIES, M.B., D,Obst., R.C.O.G. *British Medical Journal*, 1970, **3**, 502.

An outbreak of 44 cases of liver fluke infestation is described from a general practice near Chepstow. All 44 patients admitted eating wild watercress from a bed near infected cattle and sheep during September–October 1968, two to three months before the onset of symptoms. The illness usually presented with malaise, intermittent fever, weight loss and pain under the right costal margin. Laboratory findings were a positive stool test for ova or positive complement fixation test, usually with raised ESR and eosinophil count. Treatment was with emetine by injection for adults, and chloroquine by mouth for children. All responded satisfactorily. This is the largest outbreak so far recorded in Britain.