CHRONIC BRONCHITIS IN THE OVER SEVENTIES

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One of the features of chronic bronchitis is that its incidence rises with age, but there have been few studies reported that have included those over the age of 70. The reasons for this omission are probably because the disease is economically most important in those at work, under the age of 65, and also because it is much easier to collect records and obtain the co-operation of this younger group. Nevertheless, chronic bronchitis is important in the elderly. It causes much disability in the patient, and a good deal of work for the family doctor and the hospital.

In spite of the difficulties of making an accurate diagnosis (because of similar symptoms resulting from cardiac failure) an attempt has been made to estimate the incidence of chronic bronchitis in all those over 70 in this practice.

Methods

The study was carried out simultaneously with the investigation by the College of General Practitioners (1961) which was concerned only with persons aged 40–65.

The same questionnaires were used in the two studies but the peak flowmeter was not used here because of the difficulties the old people had in using it. All but eight of the patients aged 70 and over in the practice were seen and questioned (446 out of a possible 454).

As in the main study two levels of diagnosis were recognized (1) where a *clinical* diagnosis was made on the family doctor's knowledge of the patient's history and (2) a *standard* diagnosis where positive answers were obtained to the questions relating to morning phlegm in winter (question 7), cough and phlegm lasting longer than 3 weeks each winter for more than 2 winters (question 19) and breathlessness on exertion (question 24).

Results

The numbers of those aged 70 and over in the practice seen and

questioned are shown in table I.

TABLE I

AGE AND SEX DISTRIBUTION OF THOSE QUESTIONED

Age	70—79	80 *and over*	*Total*
Males ..	121	33	154
Females ..	212	80	292
Total	333	113	446

The *prevalence of* " *chronic bronchitis* " in this group is shown in table II.

TABLE II

THE PREVALENCE OF CHRONIC BRONCHITIS IN THOSE OVER 70

Age	70—79				80 *and over*				*Total*	
	No.	*Per cent Br.*	*No.*	*Per-cent S.D.*	*No.*	*Per-cent Br.*	*No.*	*Per-cent S.D.*	*Per-cent Br.*	*Per-cent S.D.*
Males	49	40	34	28	20	61	16	48	45	32
Females	57	27	32	15	25	31	17	21	28	17
Total	106	32	66	20	45	40	33	29	34	22

(Per cent Br. = percentage with " bronchitis " diagnosed clinically).
(Per cent S.D. = standard diagnosis).

These prevalence rates show, a rise with age in both sexes, but the rise is much more marked in males than in females. When these rates are looked at in conjunction with those in the College of General Practitioners' study (1961) for those aged 45–64, the steeper rise in males is continued, whereas that for females remains much more general.

The *clinical features* of the " chronic bronchitis " (clinically diagnosed) are broken down in table III, and in this way a grading of the severity can be obtained. Surprisingly enough, the proportions of more severely disabled, those with breathlessness and a history of acute chest illness, were lower in men than in women. It is usually considered that the condition is more severe in men. The explanation may be that those men who are severely affected die young and never reach the age of 70.

TABLE III

CLINICAL FEATURES OF CHRONIC BRONCHITIS

Age	70—79		80 *and over*		*Total*	
	No.	*Per-cent Br.*	*No.*	*Per-cent Br.*	*No.*	*Per-cent Br.*
Males						
Chronic sputum only	19	38.7	8	40.0	27	39.1
Chronic sputum and chest illness	19	38.7	6	30.0	25	36.2
Chronic sputum and chest illness and breathlessness	11	22.6	6	30.0	17	24.7
Total number chronic bronchitics	49	100	20	100	69	100
Females						
Chronic sputum only	20	35.1	5	20.0	25	30.1
Chronic sputum and chest illness	16	28.1	12	48.0	28	34.1
Chronic sputum and chest illness and breathlessness	21	36.8	8	32.0	29	35.8
Total number chronic bronchitics	57	100	25	100	82	100

Smoking habits. The smoking habits of these 446 old people are shown in table IV.

TABLE IV

SMOKING HABITS OF THOSE AT RISK

Age	70—79		80 *and over*		*Total*	
	No.	*Percentage*	*No.*	*Percentage*	*No.*	*Percentage*
Males						
Smokers	62	51.2	22	66.7	84	54.5
Non-smokers	59	48.8	11	33.3	70	45.5
Females						
Smokers	32	15.1	5	6.3	37	12.6
Non-smokers	180	84.9	75	93.7	255	87.4

When the prevalence rates of chronic bronchitis in smokers and non-smokers were assessed, striking differences were obvious (table

V). In men the prevalence of chronic bronchitis in smokers was more than seven times that in non-smokers and in women the difference was almost four-fold. Even with these small numbers it is of some interest to note that the rate of bronchitis in non-smokers was twice as high in women as in men, confirming the impression that a good proportion of bronchitic women are non-smokers.

TABLE V

SMOKING HABITS AND PREVALENCE OF CHRONIC BRONCHITIS

Age	70—79		80 *and over*		*Total*	
	No. Br.	*Percentage Br.*	*No. Br.*	*Percentage Br.*	*No. Br.*	*Percentage Br.*
Males						
Smokers	42	67.7	20	90.1	62	73.7
Non-smokers	7	11.8	0	0	7	10.0
Females						
Smokers	22	68.7	5	100	27	72.9
Non-smokers	35	19.5	20	26.7	55	21.8
Total	106	31.8	45	39.9	151	33.8

Conclusions and Summary

This survey carried out in a South London general practice was intended to be complementary to the main investigation of the College of General Practitioners (1961) on chronic bronchitis in Great Britain.

The presence of chronic bronchitis was estimated in 446 patients in the practice aged 70 and over. The information was obtained by completing for each of the patients the same questionnaires as were used in the main study.

The prevalence rates showed a rise with age in these elderly patients. This rise was very much steeper in *men:* from 40 per cent in the 70–79 decade to 60.6 per cent in those 80 and over. In *women* the corresponding rates were 26.8 per cent and 28.1 per cent respectively. These findings are in keeping with the trends found in younger groups where the prevalence also rises much more steeply in men.

It was rather surprising to find that there were more women in the more seveiely affected groups where the condition had been complicated by an acute chest illness and breathlessness than men. The probable explanation is that in men the severe grades of the disease occur earlier and cause death before the age of 70.

When the prevalence was related to smoking habits there was an

unquestionable connection between the two. There were seven times as many bronchitics in those old men who smoked than in non-smokers and nearly four times as many in women who smoked as in non-smokers.

REFERENCE
College of General Practitioners, 1961, *Brit. med. J.* **2**, 973.

Advances in General Practice. RICHARD SCOTT, M.D., D.P.H. *The Practitioner* (October 1961), **187**, 557.

Dr Scott discusses what constitutes general practice, and singles out two main characteristics of it: the field is undifferentiated, and there is continuity of provision of personal care. Advances in general practice must satisfy the criteria—do they improve the diagnostic and therapeutic skills of the practitioner? And do they enhance the quality of personal care which he provides?

Three aspects of practice are (*a*) existing medical knowledge, (*b*) diagnostic and therapeutic facilities, time available, and other circumstances, and (*c*) the personal attributes of the doctor himself. Passing quickly over the first aspect, which is best dealt with by specialists, Dr Scott goes on to discuss problems arising from the nature of general practice—the lack of time for research and thought, and the professional isolation so easily besetting the general practitioner. These have been modified by the establishment of the College of General Practitioners. There has also been a tendency for the undergraduate to be brought into touch with family practice, to the great benefit of both student and doctor.

In postgraduate education there has been even more development, and opportunities have increased quite strikingly in recent years. Here again the College has done much, and there is the trainee assistant scheme, and a number of local schemes in which hospital and family practice are combined. The latest recommendations of the Platt committee suggest that there is a place for " medical assistants " in hospitals, combining hospital work with general practice. There has also been a recent development of organized research in general practice, and substantial funds are accruing for use to this end. Attempts have been made to study administration and organization of general practice, and to measure the quality of the medical care given by individual practitioners.

All these tendencies will inevitably result in a clearer understanding of what the family doctor's function is, and how he best should carry out his duties.