Rheumatic complaints in general practice

R. E. H. PARTRIDGE, M.B., B.S., M.R.C.S., L.R.C.P., M.R.C.P.
and
J. D. E. KNOX, M.D., M.B., Ch.B., M.R.C.P., M.R.C.G.P.
Edinburgh

A report from the Industrial Survey Unit of the Arthritis and Rheumatism Council and the Research Committee South-east Scotland Faculty, Royal College of General Practitioners

RHEUMATIC complaints are among the commonest of the certificated causes of sickness absence from work (Report of Ministry of Pensions 1966). Such painful disorders of the locomotor system are common in general practice: in the study by the College of General Practitioners and the Registrar General's Office, the prevalence rate of this group of conditions was second only to that for nasopharyngitis (Logan and Cushion 1958). In a more detailed analysis of data from that study, Walford (1962) estimated that one person in nine consults a family doctor every year because of rheumatic complaints. The pattern of rheumatic conditions in that survey showed a predominance of 'non-articular rheumatism', thus differing markedly from that seen in the hospital department of rheumatology with its preponderance of 'arthritis'. These observations were made in the absence of agreed diagnostic criteria among the participating doctors, and in the face of the shortcomings of the World Health Organization's International Statistical Classification with regard to the rheumatic disorders.

Against this background, and in view of the importance of rheumatic conditions as a cause of morbidity, a more intensive small scale prospective study of the problem was planned jointly by the South-east Scotland Faculty of the Royal College of General Practitioners and the Industrial Survey Unit of the Arthritis and Rheumatism Council (A.R.C.).

The aims of this study were:

1. to obtain a clearer picture of the site and type of 'rheumatism' encountered in general practice;
2. to assess the size of the problem as it affects the general practitioner;
3. to assess the use made of medical services by patients with rheumatism;
4. to assess the social effects of these complaints with particular regard to sickness absence from work and enforced change of occupation.

Background and methods

The prospective study was carried out in Fife (*see* figure 1) in seven practices with such diverse settings as mining villages, fishing communities and small industrial towns. The composition of the practice population by age and sex is shown in table I. The investigation covered a period of 12 months from 1 April 1964 to 31 March 1965; (five practices continued the study until 31 March 1966, but the results of the second year are not considered in this report).

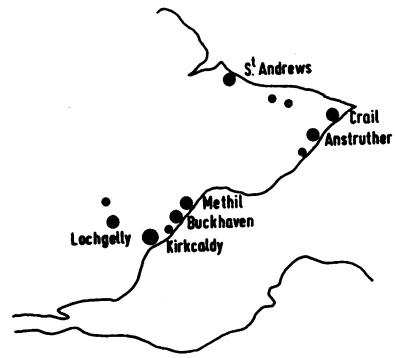

Figure 1.
Map of Fife. Showing towns covered by survey.

Patients were included in the survey if they were 15 years of age or more and consulted their practitioner with a 'rheumatic complaint' during the study year. Rheumatic complaints were defined as—

1. Presenting symptoms of pain apparently related to a structure of the musculoskeletal system, excluding the effects of direct trauma.
2. Diagnosis by the practitioner of one of an agreed list of rheumatic diseases irrespective of the presenting symptoms.

For each patient entered into the survey, a *pro forma* was completed by the general practitioner. A firm or tentative diagnosis was recorded and the site or sites of pain

TABLE I
AGE AND SEX STRUCTURE OF POPULATION

Age (years)	*15–24*	*25–34*	*35–44*	*45–54*	*55–64*	*Over 65*	*Total*
Male ..	1,384	1,221	1,315	1,254	1,208	1,129	7,511
Female ..	1,555	1,357	1,458	1,355	1,399	1,716	8,840

were indicated on the outline of the human figure included in this *pro forma*. Monthly returns were sent to the A.R.C. Industrial Survey Unit, Edinburgh, and frequent progress reports were issued to the participants.

During the course of the survey, a proportion of the patients was visited by one of us (R.E.H.P.) to obtain further information on the social and economic effects of the rheumatic complaint. Advantage was taken of this visit to re-assess the diagnosis.

A postal questionnaire was sent to a further sample of the patients, requesting information on sickness, absence from work because of rheumatism, change of occupation for health reasons, hospital referral and hospital treatment.

Diagnostic criteria and analysis of results

Even with the fullest of diagnostic aids and skills to be found in the hospital department of rheumatology, the proportion of patients in whom the diagnosis is uncertain may be as high as 22 per cent (Duthie 1964). In general practice, diagnosis often cannot be precise; indeed, one report (Records Unit Working Party 1958) showed that only 55.5 per cent of all illness treated by general practitioners could be accurately diagnosed. Rheumatic disease labels were shown to be among those for which there was the greatest inter-observer disagreement (Records and Statistical Unit 1963). To minimize inter-observer error in the present survey, the participating doctors first agreed on the criteria outlined above and familiarized themselves with the main features of the commoner rheumatic diseases set out in the collected *Reports on Rheumatic Diseases* published by the A.R.C.

To reduce spurious accuracy in diagnosis and to facilitate analysis of results, diagnosis was subsequently standardized by site and type of complaint thus:

1. *Lumbar and pelvic girdle pain*, with or without radiation into the legs.
2. *Neck and shoulder girdle pain*, with or without radiation into the arms.
3. *Peripheral localized pain* confined to a single isolated area of a limb, usually a joint, although this category was used if the symptom occurred symmetrically, i.e. both knees, both hands, etc. The category was further subdivided by site of pain.
4. *Polyarticular pain.* All patients with polyarthritis or polyarthralgia were placed in this category and subclassified according to the presence or absence of inflammation.
5. *Multiple non-articular symptoms.* Multiple aches and pains not obviously arising from joints in patients in whom symptoms were too vague to classify in any other way.

Statistical tests. Where applicable, the Chi-Square test has been used. Where it has been

necessary to test the significance between age-standardized ratios the test used is that applied to Occupation Mortality Ratios (Registrar General 1951).

Results

The number of patients consulting with rheumatic complaints by age and sex is shown in table II. The overall patient consulting rate per 1,000 at risk was 54.7 for women and 39.2 for men, a ratio of 1.4 : 1. The rate for women was higher in all decades except one (25–34) and the difference was most marked in the youngest and the oldest age groups. In both men and women there was a positive correlation between increasing age and the number of complaints up to the age of 64. A fall in the patient-consulting rate occurred among those 65 years of age or over, the drop being slight in women but substantial in men.

TABLE II
CONSULTATIONS BY AGE

Age (years)	*15–*	*25–*	*35–*	*45–*	*55–*	*65–*	*All 15+*
MALE—							
Patient consulting rate per 1,000	8.7	27.0	33.5	53.4	72.8	45.2	39.2
Number at risk	1,384	1,221	1,315	1,254	1,208	1,129	7,511
FEMALE—							
Patient consulting rate per 1,000	19.3	25.1	43.9	59.0	92.5	85.7	54.7
Number at risk	1,555	1,357	1,458	1,355	1,399	1,716	8,840

The overall patient-consulting rates per 1,000 at risk in each of the main rheumatic groups are shown in figure 2.

Lumbar and pelvic girdle pain (figure 3)

The consulting rate for pain in the lumbar region was 16.2 per 1,000 in men compared with 10.7 per 1,000 in women. The difference is significant ($P < 0.01$). Lumbar pain was more frequent in men in all decades with the exception of the 15–24 age group. It was the complaint responsible for exactly half of all males consulting in the age group 25 to 54, but for only one quarter of all females consulting during the study. A similar proportion of men and women with lumbar backache complained of sciatic radiation of the pain (37.7 per cent and 35.1 per cent).

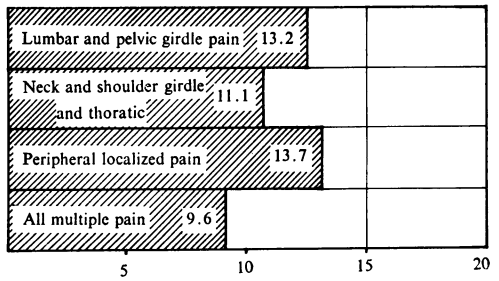

Figure 2.
Complaint rates per thousand patients

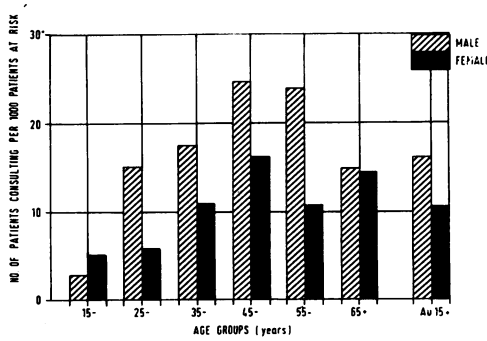

Figure 3.
Lumbar and pelvic girdle pain

Thoracic, neck and shoulder girdle pain (figure 4)

The patient-consulting rate for pain affecting the thoracic region and cervical spine, with or without radiation into one or both arms, was 7.9 per 1,000 men and 13.8 per

1,000 women. The difference is significant ($P < 0.001$). Women in all age groups consulted more frequently than men with neck and shoulder girdle pain, the difference between the sexes being most marked in the age groups 15–44. From age 15 to 34 pain in the neck and shoulder girdle was responsible for 51.5 per cent of all complaints in women and 28.9 per cent of all complaints in men. Thoracic pain, mostly localized to the scapular and pectoral regions, accounted for 39.0 per cent of men in this group and 36.9 per cent of women. In 18.7 per cent of men and 14.8 per cent of women there was radiation of pain to one or both arms.

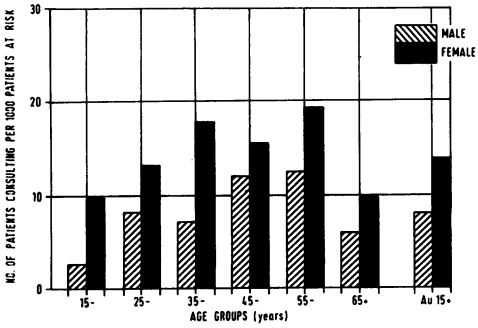

Figure 4.
Thoracic neck and shoulder girdle pain

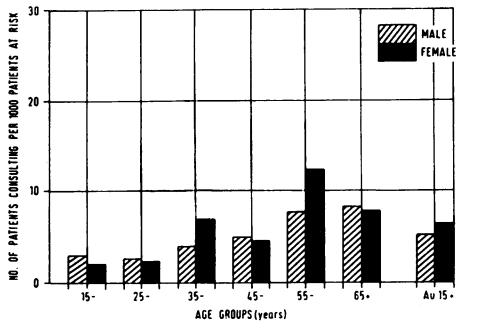

Figure 5.
Upper limb pain

Peripheral localized pain

Upper limb pain (figure 5) included capsulitis of the shoulder where this could be distinguished from the less precise category of shoulder girdle pain. Also included in the upper limb group were cases of suspected tendonitis of the common extensor origin and tenosynovitis around the wrists in addition to pain arising from a joint. The overall difference between men and women for patient-consulting rates for upper limb pain was not significant ($0.3 < P < 0.5$). Arm complaints were more frequent in the older age groups in both sexes, perhaps associated with the development of degenerative changes. Sixty-one per cent of upper limb pain in men arose from the shoulders, compared with 69 per cent in females. Pain around the elbow joint, diagnosed as tendonitis, occurred in seven men and three women; tenosynovitis of the forearm tendons was recorded in seven men and 11 women. Two women had stiffness in the fingers of both hands that might have been a manifestation of generalized disease, although other symptoms were not apparent.

Below the age of 65, the difference between the sexes for patient-consulting rates because of lower limb pain (figure 6) was slight ($\chi^2=0.98, 0.3 < P < 0.5$), but over the age of 65, 32.6 per 1,000 women complained of lower limb pain compared with 9.8 per 1,000 men ($\chi^2=14.5, P < 0.001$). This difference was principally due to the presence

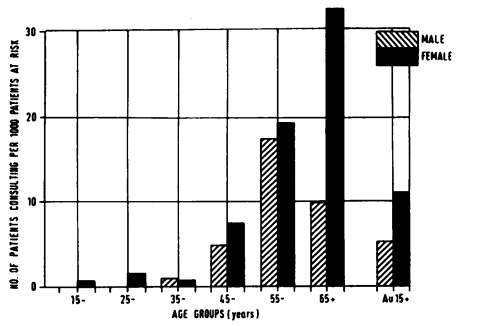

Figure 6.
Lower limb pain.

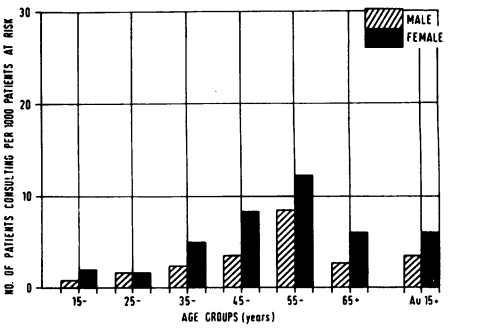

Figure 7.
Polyarticular pain — inflammatory

in women of pain in one or both knees, commonly ascribed by the practitioners to osteoarthrosis; 22.2 per 1,000 women over 65 compared to 4.4 per 1,000 men of the same age ($\chi^2=13.7$, $P < 0.001$). Out of the whole group knee pain was bilateral in 14 out of 24 men (58 per cent) and 28 out of 64 women (44 per cent). In cases of unilateral knee pain the right knee was complained of twice as frequently as the left in both sexes. There was no significant difference between men and women in the patient-consulting rates for hip pain; 1.6 per 1,000 women compared to 1.2 per 1,000 men ($0.3 < P < 0.5$). Pain in the 1st metatarsophalangeal joint, excluding cases of gout, was recorded in only three women and one man.

Polyarticular pain

Patient-consulting rates for all polyarticular pain were 13.5 per 1,000 women and 4.9 per 1,000 men ($P < 0.001$). An inflammatory polyarthritis was recorded in 50 women (5.7 per 1,000) and 23 men (3.1 per 1,000) and the distribution by age is shown in figure 7. Women in all but one age group (25–34) consulted more often than men and there was a gradual rise in consulting rates up to the age of 64. Fewer patients over the age of 65, however, consulted for this reason. Definite or classical rheumatoid arthritis was recorded in 23 women (2.6 per 1,000) and six men (0.8 per 1,000). Other specific diagnoses in women were one each of erythema nodosum, polymyalgia rheumatica and rheumatic fever and, in men, five of ankylosing spondylitis, four of gout and one each of polymyalgia rheumatica and psoriatic arthropathy. In the remaining cases of inflammatory polyarthritis (24 women and six men) the diagnosis was less certain but clinical features corresponding to the criteria for probable or possible rheumatoid arthritis were noted in the majority.

Polyarticular pain of a non-inflammatory nature (figure 8) thought to represent osteoarthrosis was recorded in 58 women (6.6 per 1,000) and seven men (0.9 per 1,000) and occurred in patients over the age of 35. In 17 women the hands were involved, suggestive of primary generalized osteoarthrosis. The most frequent distribution of pain in the osteoarthrosis group was lumbar backache with involvement of both hips and both knees. Patients with rheumatoid arthritis and osteoarthrosis were much more frequently seen in the older age groups of both sexes, and polyarticular pain from all causes was the commonest rheumatic complaint in women consulting in the 55–64 age group (31.7 per 1,000). This was only exceeded in those over 65 by lower limb pain, much of which was certainly degenerative and probably many of these women had involvement of other joints about which no complaint was made to the practitioner.

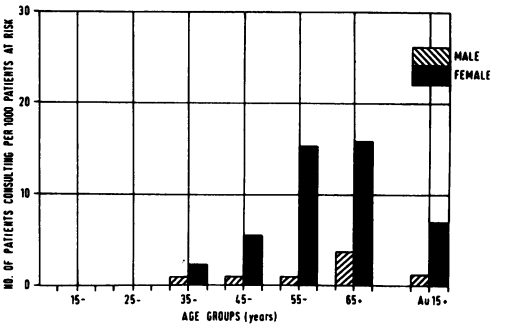

Figure 8.
Polyarticular pain — non-inflammatory.

Multiple non-articular pain which was too vague to be classified was recorded in seven men and 11 women. The pain complained of appeared to arise from structures between joints rather than joints themselves. In most cases both upper and lower limbs were involved, but in some patients neck and back pain was also noted, suggesting that some of this group at least may have had multiple disc disease.

Inter-practice variation in consultation rates

Table III shows the consultation rate for each of the seven practices. Patient consulting rates for men per thousand at risk varied from 30.0 to 86.8 per 1,000; the rate for women varied from 21.9 to 134.1 per 1,000, a difference in rate of over six times

TABLE III

CONSULTATION RATE BY PRACTICE

Practice	*1* *Light industrial*	*2* *University (residential)*	*3* *Fishing, rural*	*4* *Mining*	*5* *Mining*	*6* *Mixed industrial*	*7* *Mixed industrial*
MALE—							
Patient-consulting rate per 1,000	59.3	86.8	31.2	30.2	51.0	39.8	30.0
Number at risk	877	346	2,179	1,558	824	427	1,300
FEMALE—							
Patient-consulting rate per 1,000	134.1	129.1	40.8	21.9	63.4	30.2	44.2
Number at risk	1,029	433	2,891	1,642	866	464	1,515
MALE/FEMALE RATIO ..	0.38	0.54	0.57	1.31	0.78	1.21	0.58

TABLE IV

SITE OF RHEUMATIC COMPLAINT BY PRACTICE

(Patient consulting rates per 1,000 at risk)

	Practice	*Lumbar and pelvic girdle*	*Neck and shoulder girdle*	*Upper limb*	*Lower limb*	*Polyarticular and multiple non-articular pain*	*All complaints*
MEN	1	12.6	25.1	6.8	9.1	5.7	59.3
	2	31.6	23.1	8.7	14.4	8.7	86.8
	3	15.6	3.7	4.1	2.8	5.0	31.2
	4	22.4	3.9	0.6	1.3	1.9	30.2
	5	20.6	6.1	8.5	8.5	7.3	51.0
	6	16.4	9.4	9.4	2.3	2.3	39.8
	7	5.4	4.6	4.6	7.7	6.2	30.0*
	Total	16.2	7.9	4.8	5.2	4.9	39.2
WOMEN	1	13.6	43.7	13.6	22.3	40.8	134.1
	2	23.1	46.1	23.1	25.4	11.5	129.1
	3	8.7	7.3	4.5	9.7	10.7	40.8
	4	7.3	7.3	1.2	1.2	4.9	21.9
	5	19.6	4.6	5.8	22.0	11.5	63.4
	6	6.5	8.6	4.3	2.2	8.6	30.2
	7	8.6	11.6	4.0	8.6	12.5	44.2
	Total	10.7	13.8	5.9	11.0	13.5	54.7

*Including two men — site of pain unknown.

from one practice to another. Male–female ratios ranged from 1 : 2.3 to 1.3 : 1, and in two practices more males than females were recorded. The differences between the practices in the recording of the rheumatic conditions described above are shown in table IV. Two practices recorded considerably more patients than would be expected from consideration of the overall results, one practice was near the mean and the others were below. More inter-practice variation occurred in the recording of women than for men. The two practices which recorded high patient-consulting rates did so for almost every rheumatic category. However, the practices with low overall consulting rates recorded rates near or sometimes above the average for certain specific complaints (as may be seen by the proportion of male lumbar and pelvic girdle complaints in practice 4). Variation was least for lumbar and pelvic girdle pain and greatest for peripheral localized pain, particularly in women.

Hospital referral (table V)

In a sample of patients below the age of 65, 226 women and 180 men, an independent assessment was made of the use of hospital services. 46.5 per cent of the female sample and 54.4 per cent of the male sample had been referred to hospitals at some time in their lives with the rheumatic complaints recorded during the survey. 35.9 per cent of women and 42.8 per cent of men had received some treatment and the others had been sent for diagnostic purposes only. Patients of both sexes with polyarticular pain were referred most frequently, followed by patients with low back pain and peripheral localized pain. Patients with neck and shoulder girdle pain showed the lowest referral rate and treatment rate among both men and women.

TABLE V
USE OF HOSPITAL SERVICES
(Percentages in brackets)

Sex	*Hospital referral*		*Lumbar and pelvic girdle pain*	*Neck and shoulder girdle pain*	*Peripheral localized pain*	*All multiple pain*	*All complaints*
MALE	Referred	Treatment given	35 (*42.7*)	9 (*26.5*)	16 (*41.0*)	17 (*68.0*)	77 (*42.8*)
		No treatment	11 (*13.4*)	3 (*8.8*)	4 (*10.2*)	3 (*12.0*)	21 (*11.6*)
	Not referred		36 (*43.9*)	22 (*64.7*)	19 (*48.8*)	5 (*20.0*)	82 (*45.6*)
	Total in group on which percentages are based		82 (*100.0*)	34 (*100.0*)	39 (*100.0*)	25 (*100.0*)	180 (*100.0*)
FEMALE	Referred	Treatment given	19 (*37.3*)	15 (*25.4*)	21 (*35.6*)	26 (*45.6*)	81 (*35.9*)
		No treatment	4 (*7.8*)	8 (*13.6*)	3 (*5.1*)	9 (*15.8*)	24 (*10.6*)
	Not referred		28 (*54.9*)	36 (*61.0*)	35 (*59.3*)	22 (*38.6*)	121 (*53.5*)
	Total in group on which percentages are based		51 (*100.0*)	59 (*100.0*)	59 (*100.0*)	57 (*100.0*)	226 (*100.0*)

In this survey 80 (27.1 per cent) out of 295 men consulting were recorded as having been referred to hospital during the survey year, a referral rate of 10.6 per 1,000 at risk. One hundred and three women (21.3 per cent) out of 484 consulting were also referred to hospital during the survey year, a referral rate of 11.6 per 1,000 at risk.

Sickness absence from rheumatism (table VI)

The 180 men in the sample were asked if they had ever been off work because of their rheumatic complaints at any time during their working lives. Sixty-one (33.9 per

cent) had been off work for a short period (less than three months), 36 (20.0 per cent) had been off work for between three months and one year. In a further 13 (7.2 per cent) incapacity had lasted for more than a year and some of this group were permanently disabled. Long periods of incapacity for work were most frequent among the men

TABLE VI

TIME OFF WORK—MALE SAMPLE

Site of pain	*Total* in *group*	*Off*			*Not off*
		1 year +	*3–12 months*	*Less than 3 months*	
Lumbar and pelvic girdle ..	82	7	20	35	20
Per cent	*100.0*	*8.5*	*24.4*	*42.7*	*24.4*
Neck and shoulder girdle ..	34	0	4	10	20
Per cent	*100.0*	*0.0*	*11.8*	*29.4*	*58.8*
Peripheral localized pain ..	39	1	5	8	25
Per cent	*100.0*	*2.6*	*12.8*	*20.5*	*64.1*
All multiple pain	25	5	7	8	5
Per cent	*100.0*	*20.0*	*28.0*	*32.0*	*20.0*
All complaints	180	13	36	61	70
Per cent	*100.0*	*7.2*	*20.0*	*33.9*	*38.9*

with polyarthritis (in this group the cause was either rheumatoid arthritis or ankylosing spondylitis) and nearly half of them had lost more than three months work.

Twenty-seven men (32.9 per cent) of 82 men with lumbar and pelvic girdle pain had been off work for three months or more at some time and the incapacity had lasted more than one year in seven (8.5 per cent). Neck and shoulder girdle pain and peripheral localized pain were least likely to cause prolonged incapacity.

Change of occupation

Forty-one men (22.8 per cent) out of 180 in the independent sample said they had changed their occupation because of rheumatic complaints. The commonest causes of change were lumbar and pelvic girdle pain (21 men) and polyarthritis (12 men). There is a close parallel between these figures and those for prolonged incapacity for the same reason.

Nineteen men (10.5 per cent) had changed their occupation for reasons of other ill health.

Discussion

Estimates of the prevalence of rheumatic complaints in the general population vary and depend upon the age–occupation structure of the population under study and the time period which is being considered. Surveys conducted among the working population (Partridge and Duthie 1968) suggest the annual period prevalence is 3–4 times higher than the proportion consulting their general practitioners for rheumatism. Whilst the findings in this survey, which is based upon the self referral of patients, cannot be compared directly in detail with those of epidemiological surveys, certain trends parallel the observations from such studies. Thus the patient-consulting rate increased with age, a finding which carries obvious implications for an ageing society. Studies such as the one presented here and that of Logan and Cushion (1958) may give a clearer idea of the true morbidity of different rheumatic complaints in the population as

presumably the patients who consult their doctor are those in whom the symptoms are more severe, or temporary functional incapacity has occurred.

The overall patient-consulting rate for women (54.7 per 1,000) and men (39.2 per 1,000) is lower than that given by Logan and Cushion (1958) although direct comparisons may be misleading as their classification of rheumatic complaints was different. The male–female ratio of that study of about 1.3: 1 was similar to the ratio of 1.4: 1 in the present one.

The higher overall consulting rate for females than for males is likely to be partly an expression of the greater use of medical services for many diseases known to be made by females (Logan and Cushion 1958) although it is probable that some rheumatic disorders are commoner among women than men.

The greater fall in the patient-consulting rate in men than women over the age of 65 years suggests that the need to obtain medical certificates is a relatively important factor in determining the general practitioner's work-load as far as rheumatic diseases are concerned. Amongst men the striking finding is the high consulting rate for lumbar and pelvic girdle pain compared with rheumatic complaints at other sites. Many of these axial pains were undoubtedly due to herniation or degeneration of the lumbar discs and more than a third of men and women had a characteristic radiation of pain down the sciatic nerve. This group of rheumatic disorders was responsible for half of all male complaints from age 25 to 54, the major portion of a working life. In the sample specially examined, low back pain was responsible for prolonged sickness-absence from work (periods greater than three months) in one third of men so afflicted; it was also responsible for frequent involvement of hospital services, 50 per cent of all sufferers being referred. These findings are complementary to studies in industry which show that more than half of sickness-absence from work from rheumatic causes is due to lumbar disc disease and back pain (Partridge, Anderson and Duthie 1964, Partridge 1968).

By contrast, the patient-consulting rate for upper back, neck and shoulder pain was significantly higher in women than in men, associated with less frequent prolonged absence from work and less frequent referral to hospital. Most practices recorded the highest complaint rate in the age range 15–44 years. This finding carries the implication that frequently repeated movement, such as bending and lifting children, and prolonged stooping over sinks might be causative factors, although other observers have associated some of these ill-defined axial pains with recent infection (Mennell 1935, Beeson and McNair Scott 1941), and psychoneurosis (Halliday 1935, Flind and Barber 1945, Asher 1957). Some support for the latter suggestion is given by Partridge, Anderson, McCarthy and Duthie (1965) who found that young women with rheumatic complaints had a significantly higher score on the Maudsley Personality Inventory for neuroticism than a matched group without rheumatism. The true nature of many of these painful conditions affecting the upper and lower trunk is often obscure, and although many are of relatively short duration, the findings emphasize the need for more information on the aetiology of these complaints.

The grouping 'peripheral localized pain' gave the highest overall complaint rate, and in each age group (except the 35–44 age group) the consulting rate was higher in women. The main component was definite or suggested osteoarthrosis, which was specially marked in women over 55 years of age, where the largest single component was pain in one or both knees. Another survey (Lawrence *et al.* 1963) showed that the prevalence of severe degrees of osteoarthrosis radiologically is more than twice as common in women than men from the age of 55 onwards, which may help to explain the greater consulting rate for this cause in the older women of this survey. By contrast, in the present survey there was little difference between the sexes in the complaint rate for osteoarthrosis of the hip. The prevalence of marked radiological changes in this joint is said to be similar in both sexes (Lawrence *et al.* 1963).

Only a very small number of patients presented with foot pain; a finding which is complementary to that of Williamson and others (1964), whose survey among the elderly revealed this to be one of the commoner disabilities unknown to the general practitioner. Such symptoms will discourage a patient from making the journey to see a doctor; although the pain may be persistent it may not reach sufficient intensity to allow the sufferer to feel justified in asking for a house-call.

A broad distinction was attempted between 'inflammatory' and 'non-inflammatory' polyarticular pain, although this distinction was not always certain clinically. The early forms of rheumatoid arthritis and generalized osteoarthrosis in older people show considerable overlap of clinical features even if the diagnosis is obvious in the fully developed form. Most patients with inflammatory polyarthritis were diagnosed as probable or definite cases of rheumatoid arthritis. Inflammatory polyarthritis was the commonest cause of polyarticular pain in women from 15–44 and in men from 15–54. In the older age groups of both sexes osteoarthrosis predominated. In this survey, the importance of polyarthritis, rheumatoid arthritis and ankylosing spondylitis as causes of prolonged incapacity for work is well illustrated, 48 per cent of the male sample having been off work for three months or more. Polyarthritis was also a common reason for enforced change of occupation and referral to hospital. However, the results of this survey, while demonstrating the relative importance of polyarthritis as a cause of disability, suggest that the major rheumatic cause of prolonged incapacity, change of occupation and use of hospital services is lumbar and pelvic girdle pain, much of which is probably due to disc disease.

In contrast to the fact that 'some 90 per cent of all medical episodes are handled from start to finish by the family doctor without reference to hospital' (*The field of work of the family doctor* 1963), the rheumatic diseases were responsible for a considerable use of hospital services; almost one half of the sample specially checked had been referred, commonly for diagnostic x-ray (often mainly to reassure the patient) and for physiotherapy. Discussion with participating doctors suggested that the greater availability of these services would frequently have obviated the need for such referral.

Despite the simplification in diagnostic classification, it is inevitable that the between-observer error with such ill-defined terminology used will be considerable, allowing different doctors to exclude different proportions of patients from the survey. The practices recording high complaint rates recorded above the average for almost all rheumatic diseases. Such an interpretation heightens the significance of the occasional occurrence of high rates in low recording practices, suggesting a true variation in the type of complaints in different practice populations. Two of the three practices recording higher than average complaint rates for lumbar pain were set in coal mining areas. Such a finding is consistent with those of Logan (1960) and Partridge and others (1964). Nevertheless care is necessary in the wider application of the findings of this survey. It is hoped, however, that others may be stimulated to undertake similar longitudinal studies to answer questions that have not been attempted here. Such studies might attempt to throw some light on the annual, seasonal and regional incidence of rheumatoid arthritis, 'benign polysynovitis' and polymyalgia rheumatica. The low level of annual incidence of the latter in the present survey (0.12 per 1,000) would suggest the need for a larger population than was available here.

Summary

1. A survey was conducted of patients consulting with rheumatic diseases over a period of 12 months among seven general practices in Fife with a total population over the age of 15 of 16,351.

2. 54.7 women and 39.2 men per 1,000 at risk consulted their practitioners during the survey year because of rheumatic complaints.

3. Pain affecting the lumbar and pevic girdle region was the commonest complaint in

men; neck and shoulder girdle pain was the commonest in women.

4. Lumbar and pelvic girdle pain was the most important cause of sickness-absence fro m work, enforced change of occupation and hospital referral.

5. The significance of the results is discussed.

Acknowledgements

This survey would not have been possible without the co-operation of the general practitioners who took part. These were Drs H. A. Courtney, G. L. W. Cunningham, R. Emslie, C. Grant, [H. F. V. Riddle, R. K. W. Sharp, J. L. Swanston, A. Wattison, R. A. P. Whitelaw and H. W. Wright. Dr J. A. D. Anderson assisted in the planning and Dr H. Ross helped with the analysis. We are grateful to Professor J. J. R. Duthie for much helpful advice.

REFERENCES

Asher, R. (1957). *Practitioner.* **179,** 158.
Beeson, P., and McNair Scott, T. F. (1942). *Proc. roy. Soc. Med.* **35,** 733.
Duthie, J. J. R. (1964). Personal communication.
Flind, J., and Barber, H. S. (1945). *Quart. J. Med.* **14,** 57.
Halliday, J. L. (1935). *Brit. med. J.* **1,** Suppl. 85.
Lawrence, J. S., de Graaf, R., and Laine, V. A. I. (1963). *Epidemiology of chronic rheumatism.* Oxford and Edinburgh. Blackwell Scientific Publications.
Logan, W. P. D. (1960). *Studies on medical and population subjects No. 14.* (Vol. II). London. Her Majesty's Stationery Office.
Logan, W. P. D., and Cushion, A. A. (1958). *Studies on medical and population subjects No. 14,* (Vol. I). London. Her Majesty's Stationery Office.
Mennell, J. (1935). *Backache.* London. J. & A. Churchill Ltd. Second edition.
Partridge, R. E. H. (1968). *Annual report of the Arthritis and Rheumatism Council for Research.*
Partridge, R. E. H., Anderson, J. A. D., and Duthie, J. J. R. (1964). *Méd. et Hyg.* (Genève). **22,** 360.
Partridge, R. E. H., Anderson, J. A. D., McCarthy, M. A., and Duthie, J. J. R. (1965). *Ann. rheum. Dis.* **24,** 332.
Partridge, R. E. H., and Duthie, J. J. R. (1968). In press.
Records and Statistical Unit Report (1963). *J. Coll. gen. Practit.* **6,** 197.
Records Unit Working Party Report (1958). *J. Coll. gen. Practit.* **1,** 107.
Registrar General's Decennial Supplement. England and Wales (1951). *Occupational mortality.* Part II, Volume I Commentary. London. Her Majesty's Stationery Office.
Report of Ministry of Pensions and National Insurance (1966). London. Her Majesty's Stationery Office.
The field of work of the family doctor (1963). London. Her Majesty's Stationery Office. P. 12, para. 26.
Walford, P. (1962). *Studies on medical and population subjects No. 14* (Vol. III). London. Her Majesty's Stationery Office.
Williamson, J., Stokoe, K. H., Gray, S., Fisher, M., Smith, A., McGee, A., and Stephenson, E. (1964). *Lancet.* **1,** 1117.

Social workers and general practice. J. W. EVANS, M.B., B.Chir., D.C.H., T. W. I. LOVEL, B.M., B.Ch., M.R.C.P. and K. K. EATON, L.R.C.P. & S. *Brit. med. J.* 1969. **1,** 44.

"The family doctor is being increasingly referred to as 'the leader of a team', yet often it is not clear what team he leads, whither it is bound under his leadership, or indeed whether he ought to be the leader."

This report comes from a three-partner practice, with adequate ancillary staff including an attached health visitor, in a London overspill town.

Initially social and welfare problems were referred to the health visitor but it was found that "we lacked the appropriate organization for dealing adequately with the whole patient fully related to his social, family and financial background". In view of this, weekly conferences were initiated attended by the doctors, the health visitor, mental welfare and child care officers and two welfare officers, and frequently the psychiatric social worker. These conferences proved of great value to all concerned and a number of illustrative case histories are recorded. The status and role of the doctor in such a team is discussed—"If the doctor is to be the leader of such a team he should qualify by his talents for leadership rather than by his possession of a medical degree."