WHAT THE MEDICAL PRACTITIONER WANTS TO KNOW

BY

R. T. BEVAN, M.B., B.Ch., D.P.H.

(From the Department of Preventive Medicine, Welsh National
School of Medicine)

Readers of the *British Medical Journal* study with interest the section devoted to "Any Questions?" In addition to the information to be obtained from individual questions and answers, it is felt that when they are viewed as a whole some indication is given of the problems which are uppermost in the minds of the medical profession. A classification of the questions would therefore be of interest and value, but this task was found more difficult than might be imagined. It is most unlikely that any two people would adopt the same subdivisions, and it is often doubtful into which of these a particular question fits.

All the questions (2,018) published in 1943-6 were taken for analysis. Some questions required answers to more than one problem on the particular topic, but in order to prevent undue weighting of some subjects each question was counted once only and an endeavour was made to determine the main problem of the questioner. It sometimes happened that both the treatment and the aetiology of a disease were asked for, but the doctor's main concern seemed to be the treatment of his patient.

In the first place it was found convenient to divide the questions into two main groups. Group A relates to specific diseases, whereas Group B includes the remaining questions belonging to the field of medical science generally. These may be classified as follows:

Group A		Group B	
Medicine	899	Pharmacology	130
Surgery	186	Sex problems	82
Midwifery and gynaecology ..	143	Forensic medicine	69
Dermatology	165	Public health	44
E.N.T. and eyes	74	Dietetics	43
	1,467	Preclinical sciences	30
		Anaesthetics	27
		Pathology	18
		Rhesus factor	12
		Eugenics	10
		Industrial medicine	10
		Blood transfusion	5
		Miscellaneous	71
			551

Group A

These questions can be further subdivided (Table I) to demonstrate the aspects of the subjects which are the main concern of the doctor.

TABLE I

	Heredity	Aetiology and Diagnosis	Treatment	Prevention	Prognosis	Other Aspects	Total
Medicine	15	170	503	86	35	90	899
Surgery	4	30	106	8	13	25	186
Midwifery and gynaecology ..	—	15	104	2	8	14	143
Dermatology	6	9	142	6	5	4	165
E.N.T. and eyes	1	9	49	4	3	3	74
Total	26	233	904	106	62	136	1,467

The table shows quite clearly that the commonest problems are medical ones, and that treatment is the main concern. This is what one would expect, assuming that the bulk of the questions came from general practitioners. It is revealing that so much interest is centred on dermatology.

Table II shows that the nervous system is the source of many of the medical problems; in this subdivision there were 21 questions concerned mainly with epilepsy. It would seem that the preclinical and clinical student's worry over the nervous system follows him after qualification. Conditions such as cerebral haemorrhage have been included in the nervous system group, although it may well be argued that they would be more appropriate under the heading of the cardiovascular system: such are the difficulties of classification, which even international commissions have not surmounted. Into this group have been placed questions on migraine (6), neuralgia (6), vertigo (5), and post-encephalitic Parkinsonism (3); these conditions have a psychological as well as an organic aspect. Psychological issues are also raised by questions in other groups, particularly in the "sex group," but it would be confusing, and largely guesswork, to try to give a comprehensive picture of the extent to which medico-psychological problems enter into the queries not specifically classified above under "mental diseases."

TABLE II

	Heredity	Aetiology	Diagnosis	General Treatment	Penicillin Treatment	Sulphonamide Treatment	Hormone Treatment	Dietetic Treatment	General Prevention	Specific Prevention	Laboratory Tests	Prognosis	Statistics	Technique	Others	Total
Nervous system	3	7	18	60	1	—	1	2	—	—	6	3	—	—	—	101
Cardiovascular system	1	10	10	51	—	2	4	—	—	—	3	2	—	—	—	89
Blood diseases	3	3	1	19	—	—	—	—	1	—	12	4	1	—	—	44
Respiratory system	—	6	4	11	2	4	—	—	—	—	2	—	—	—	—	31
Allergy	1	7	1	31	1	2	—	1	1	—	1	2	—	—	1	48
Alimentary system	1	8	10	44	1	2	—	4	—	—	6	1	—	—	—	80
Genito-urinary system	—	4	6	14	—	2	—	3	1	—	4	2	—	—	—	35
Ductless glands	1	5	8	24	—	—	5	1	—	—	3	1	—	—	—	49
Drug addiction, poisoning ..	—	—	—	7	—	—	—	—	—	—	1	5	—	—	—	13
Rheumatism, arthritis	—	7	3	31	—	2	—	2	—	—	—	1	—	—	—	47
Paediatrics	2	5	7	36	1	1	—	17	2	—	—	4	—	—	1	76
Dermatology	1	8	1	137	2	—	2	—	6	—	—	3	—	—	4	165
Mental diseases	2	1	7	12	—	—	—	—	—	—	3	2	—	—	—	27
Infectious diseases	—	14	4	47	4	4	—	—	—	58	8	3	3	3	2	167
Tuberculosis	1	4	4	17	—	—	—	1	17	3	3	2	5	1	1	44
Veneral diseases	—	—	6	17	6	3	—	—	1	—	7	3	—	—	—	48
Surgery	2	5	7	35	2	—	2	1	5	—	—	4	—	9	3	75
Orthopaedic surgery	—	4	3	25	2	1	—	—	—	—	—	5	—	—	—	42
First aid	—	1	—	12	—	1	—	—	2	—	—	1	—	—	1	24
Varicose veins, haemorrhoids ..	—	—	2	12	1	—	—	—	1	—	—	2	—	—	—	21
Cancer	1	6	2	6	—	—	6	—	—	—	2	1	—	—	—	24
Obstetrics	—	2	5	28	—	—	1	5	—	—	4	4	—	3	4	58
Gynaecology	—	2	3	37	—	—	12	—	2	—	—	4	—	2	1	61
Abortion	—	2	—	4	—	—	—	—	—	—	—	—	—	—	—	6
Breast-feeding	—	—	1	9	—	1	4	3	—	—	—	—	—	—	—	18
E.N.T., eyes	6	6	3	40	5	—	2	—	4	—	—	3	—	1	2	74
Total	26	117	116	766	28	27	39	44	46	60	65	62	11	35	25	1,467

An analysis of the 165 questions in the dermatology group is of interest:

Fungal infection	15	Excessive sweating	6
Psoriasis	9	Acne	5
Urticaria	9	Alopecia	5
Seborrhoeic dermatitis	7	Scabies	4
Pruritus	7	Other (miscellaneous and ill-defined conditions)	86
Verruca	6		
Occupational dermatitis	6		

It may well be that fungal infection of the skin heads the list because of its wartime frequency in the Services, particularly overseas. Most of the questions in this group are concerned with treatment.

The tables show that there is an interest in the prevention of diseases: no fewer than 60 questions (Table II) sought information regarding specific methods of preventing infectious diseases. This also is probably due to the increased risk of such diseases in wartime and to the extensive propaganda on the subject. It would be of interest to know the proportion of such questions which came from medical officers serving in the Armed Forces.

Group B

Anaesthetics play only a small part in the questions, owing no doubt to the increasing specialization in this branch of medicine. Heredity and eugenics form interesting groups—a total of 36 questions—reflecting, perhaps, an increased interest in this matter by the general public, which seeks guidance from the medical profession. Indeed, if a similar column were opened for questions from the general public the result might be revealing.

The sex problems in Group B form a large subgroup, and even though wartime conditions may be partly responsible, especially for the questions on impotence, it is felt that the size of this subgroup is significant when one remembers how negligible was the instruction on this subject received by the student at his medical school.

Sex Group

General problem of fertility .. .	3	Frequency of coitus	5
Male	28	Artificial insemination	2
Female	9	Pre-marital medical examination	3
Contraception	13	Others	3
Frigidity	8		
Sex education	3		
Masturbation and abnormal sex behaviour	5		
			82

The subgroup of questions entitled "pharmacology" is a large one, and it must be stated that in some ways it is artificial, in that into it were placed any questions concerning drugs if at the same time a specific disease or clinical picture was not mentioned. As was to be expected during the period to which this analysis applies, the questions on sulphonamides and penicillin were numerous (33) in Group B, and in addition 55 questions are to be found in Table II relating to treatment of specific diseases—so that the grand total was 88.

Out of a total of 2,018 questions 71 have been found impossible to classify into any definite subgroup. Some of these required information on the choice, care, and sterilization of instruments. There were others relating to such diverse conditions as nail-biting, sea-sickness, doctors' expectation of life, and the susceptibility of cows to rheumatic endocarditis.

Analysis of the Questioners

Having reviewed the questions, one wonders whether the questioners form a representative sample of the medical profession. They may, for example, be the more enthusiastic practitioners, or, on the other hand, the less-well-informed doctors. The questions may come from the recently qualified or from the well established. The latter may feel a greater need for advice on recent advances in treatment. Again, are the questioners the isolated practitioners?

In an attempt to answer some of these problems information, entirely anonymous in character, was kindly supplied by the Editor of the *British Medical Journal*, and an analysis was made of the questioners from England and Wales during 1945. They were first grouped according to their date of qualification, giving the following results:

Date of Qualification	No.	Date of Qualification	No.
1880-9	8	1920-9	117
1890-9	24	1930-9	94
1900-9	43	1940-5	47
1910-19	63		

It was found impossible to relate these figures to any comparable ones giving the total number of practitioners, particularly since during the period under consideration many of the more recently qualified were in the Services.

The localities of the questioners were studied in relation to the distribution of doctors as a whole. For convenience each questioner was placed in his or her B.M.A. division. It will be remembered that these divisions were divided into three types—urban, mixed, and rural—for the purpose of recruitment to the Armed Forces. The results obtained are summarized in Table III.

TABLE III

	Urban	Mixed	Rural
Total no. of practitioners	11,777	8,913	1,497
" " general practitioners	7,202	5,308	1,044
" " questions	198	158	40
No. of questions per 1,000 practitioners	16.8	17.7	26.7
No. of questions per 1,000 general practitioners	27.5	29.8	38.3
$\chi^2 = 7.5$ 0.05 > P > 0.02: significant			
$\chi^2 = 3.9$ 0.20 > P > 0.10; not significant.			

The proportion of the questioners who were actually in general practice is unknown, but, if it be assumed that all of them were, then while the figures show a tendency for rural general practitioners to submit questions more readily than their urban colleagues the differences are not greater than could have arisen by chance; but when the questioners are related to the total number of registered doctors, then statistical tests show that doctors, whether general practitioners or not, are more likely to submit questions if they live in rural areas than if they reside in more thickly populated areas.

This may well be due to their comparative isolation and the difficulty in obtaining assistance from colleagues and guidance from hospital centres. Four large provincial centres where there are medical schools (Birmingham, Cardiff, Bristol, and Liverpool) had a total of 1,746 practitioners, of whom 953 were general practitioners; but they submitted only 20 questions, which represent rates of 11.4 questions per 1,000 practitioners and 21.0 per 1,000 general practitioners. These rates, though not significantly lower than for those of urban areas as a whole, yet nevertheless favour the view that questions are not submitted so often when there are ample consultant and specialist facilities available locally.

Conclusions

The numerical value of the questions is a factor to be carefully considered, because some of the answers supply the requirements of large numbers of would-be questioners, and therefore do not need repetition, whereas others may be of interest only to the individual questioner.

Why do people ask questions? Is it because of the lack of knowledge? If so it would seem that many changes are necessary in the curriculum at medical schools. The large number of questions relating to dermatology is in marked contrast to the rather minor part this subject plays in the prequalification period. It may, on the other hand, be desirable that there should be better facilities for the

treatment of resistant skin diseases by specialists in dermatology. It would seem that sex problems and the method of immunization require additional stress either in student days or in postgraduate courses.

A number of questions relate to the treatment of conditions not normally seen in the wards of teaching hospitals—e.g., epilepsy, skin conditions, and Parkinson's disease. Hospital experience in the treatment of these conditions is often to be obtained only as a house-physician or house-surgeon in out-patient departments. It may be that the student does not see enough of the routine work in out-patient departments, but rather looks upon the departments as places where typical clinical signs are demonstrated and where differential diagnosis is learnt.

Questions may indicate excessive interest in certain aspects of medicine, but would it be correct to assume the converse? It is probably true to say that the average doctor takes little interest in statistics. "General preventive measures against disease" (46) is a small group compared with "treatment of disease" (904). Is this as it should be? Or should medical schools stimulate a greater interest in the prevention of disease and the maintenance of positive health?

There is no doubt that large numbers of the questions are attempts by questioners to keep pace with the rapid growth of medical knowledge and methods. This is exemplified by the interest shown in sulphonamides and penicillin, which have come into their own during the period under review. Such questions reveal the need for postgraduate refresher courses.

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BRODIE'S ABSCESS OF THE TIBIA ITS TREATMENT BY SURGERY, PENICILLIN, AND SULPHADIAZINE

BY

STANLEY SCOTT, M.B., F.R.C.S.Ed.
Orthopaedic Surgeon, Ayr County Hospital

AND

FRANK S. PRESTON, M.B., Ch.B.
Orthopaedic House-surgeon, Ayr County Hospital

Brodie's abscess was first described by Sir Benjamin Brodie in 1824. According to Muir it is "a local abscess of chronic nature usually situated in the metaphysis of a long bone. It is, as a rule, surrounded by dense bone and may give rise to external swelling. The contents of the space may be pus, but in very chronic cases are often a clear fluid, which may be sterile."

In all, some 342 cases of Brodie's abscess have appeared in the literature. In 1906 Thompson described an abscess of the lower end of the tibia. This specimen is preserved in the Royal College of Surgeons in Edinburgh. The abscess has a capacity of some 500 ml., and the patient, a sailor, was reputed to drain the abscess from time to time by removing a wooden plug he kept in the sinus. It is recorded that he led an extremely active life. Thompson also reported 161 cases from the literature. In 1924 Henderson and Simon reported 13 cases from the literature. In 1928 Piquet and Cynau described 9 cases of Brodie's abscess. In 1938 Wagner and Hanby reported 12 cases. In 1945 Downey and Simon, in the United States, described 2 cases and reviewed most of the above.

Site.—From the above cases the most common site for Brodie's abscess would appear to be shared equally by the

upper and lower end of the tibia. The next site, which is only half as common, is the lower end of the femur. The third commonest site is the humerus (position not stated), followed by the upper end of the femur, the middle of the tibia, and the radius (position not stated).

Aetiology

Sex.—Brodie's abscess occurs almost twice as often in males as in females, and in about 90% of the cases in which the age was mentioned it occurred below the age of 40.

Trauma.—The fact that males are as a rule subject to a greater amount of trauma than females is significant. It will also be noticed that Brodie's abscess occurs during the age period of greatest physical activity. It also occurs commonly after compound comminuted fractures.

Osteomyelitis.—Brodie's abscess often follows acute osteomyelitis. In his series of 145 cases Thompson elicited a history of acute osteomyelitis in 122. It is noticeable that Brodie's abscess frequently follows an acute osteomyelitis which has passed into the chronic stage. This is becoming increasingly less common since the advent of chemotherapy and penicillin therapy.

Acute Infections.—Brodie's abscess has been seen after acute infections—principally typhoid and paratyphoid fevers—otitis media, staphylococcal skin infections, and abscesses.

Case History

J. D., a miner aged 62, attended the out-patient department of Ayr County Hospital on March 19, 1947. He had been complaining for the past six weeks of an intense, continuous, deep-seated pain situated in the lower end of the left tibia. The pain, which was much worse at night, had gradually got more severe over these six weeks, and when seen the patient complained of feeling feverish at night, with marked malaise, anorexia, and vomiting. Two weeks before coming to hospital the left ankle began to swell, and the skin became red, glazed, and distended over both malleoli. These swellings were extremely painful, and the pain was continuous in character.

There was a history of a compound fracture of the lower third of the left tibia and fibula some thirteen years previously. This fracture had united, but there was considerable thickening of both the tibia and fibula at the junction of the middle and lower thirds.

On examination gross swelling of the left ankle was seen, particularly over both malleoli, where two large abscesses were pointing; these were approximately 2½ in. (6.25 cm.) in diameter, and appeared to be about to rupture. The whole swelling was extremely tender on palpation, particularly over the lower anterior aspect of the tibia. The slightest movement of the ankle-joint caused excruciating pain. Lymphangitis was pronounced up to the level of the knee, and both the popliteal and the superficial inguinal groups of glands were enlarged and tender.

Radiographic examination revealed an egg-shaped cavity of the lower third of the tibia, about 2½ in. long vertically, by about 1 in. (2.5 cm.) in breadth, and 1 in. in depth. There was a small bead-like pocket connecting with the lower aspect of the cavity; this was about ¼ in. (0.6 cm.) in diameter. The whole was surrounded by dense sclerotic bone. A diagnosis of Brodie's abscess was made. The white-cell count was 22,000 per c.mm. (90% polymorphonuclear leucocytes). The erythrocyte sedimentation rate was 20 mm. and 45 mm. at one and two hours, respectively.

Treatment

At first the main object was to deal effectively with the superficial abscesses and to prevent their rupture and the formation of subsequent sinuses, as this would impede any operative treatment of the bone abscess itself. The superficial abscesses were therefore aspirated on March 19 by means of a wide-bore needle which was inserted through healthy skin on either side, and 35 ml. of thick yellow pus was taken from the medial abscess and 30 ml. of similar-looking pus from the lateral abscess. Sodium penicillin in a dosage of 50 000 i.u. was injected into each abscess after aspiration. The needles were