

OPEN ACCESS—A GENERAL PRACTITIONER'S RIGHT ?

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THIS paper was compiled from an analysis of all x-rays and pathological investigations requested by myself upon patients seen throughout the year 1965. Qualified five years ago, my practice is a mixed type in a London suburb of predominantly social classes II and III. I am the junior partner in a practice of seven doctors. My total list of patients is approximately 1,850 and private patients make up less than one-half per cent. There are facilities for almost all radiological and pathological investigations likely to be needed by a general practitioner. I am on the staff of a local general-practitioner hospital, and this list does not include those investigations ordered for inpatients or for those patients seen in the casualty department.

Comment

It is not proposed to comment extensively on the clinical reason for each investigation but some notes and explanations were thought desirable. It is emphasized that this is a record of the number of investigations requested and not patients investigated.

Table I shows the x-rays requested. Routine chest x-rays, and chest x-rays ordered in the absence of clinical signs when it was felt unlikely that any radiologically demonstrable pathology was present, were referred to the nearest permanent mass miniature x-ray centre. These miniatures are included in the total number of chest x-rays ordered. Twenty-two per cent of all chest x-rays demonstrated mild abnormality (in most cases slight cardiac enlargement or early emphysema) and 11 per cent revealed or confirmed the presence of a significant abnormality including consolidation, effusion and pneumothorax. Follow-up x-rays are included in the numbers and thus these percentages of abnormal findings are rather lower than would be the case if the total figures referred to patients and not to the number of x-ray examinations.

From the barium studies, half of the meals revealed a significant

abnormality which was in all cases a duodenal ulcer. Barium enemas were not requested unless sigmoidoscopy had first been performed and I was not carrying out this procedure to any extent in 1965. Four of the 12 intravenous pyelograms demonstrated calculi or hydronephrosis, and four of the eight cholecystograms revealed either gall-stones or a non-functioning gall-bladder.

Of the 54 x-rays of bones (excluding the spine) 25 were requested to exclude bony injury after trauma. The reason for these 25 was medicolegal, for in no case was a fracture thought clinically possible. When a fracture was suspected the patient was referred directly to a local casualty department where consultant orthopaedic supervision would be available if needed. Of the 25 x-rays, two showed the presence of a fracture. One was an undisplaced fracture of a radial styloid and the other a fractured phalanx of a toe.

TABLE I
X-RAYS

<i>Type of X-ray</i>	<i>Total</i>	<i>No abnormality</i>	<i>Mild abnormality</i>	<i>Significant abnormality</i>
Chest	139	94	30	15
Barium meal	8	4	None	4
Barium meal and follow through	2	1	None	1
Barium enema	1 (unsatisfactory result—enema not retained)			
Barium swallow	2	2	None	None
Cholecystogram	8	4	None	4
Intravenous pyelogram	12	7	1	4
Straight abdomen	3	2	None	1
Parotid gland and duct	2	2	None	None
Nasal sinuses	20	6	6	8
Cervical, dorsal and lumbar spine	29	16	4	9
Skull	5	5	None	None
Pelvis and hips	10	7	2	1
Upper limb skeleton	20	13	4	3
Lower limb skeleton	19	15	3	1
TOTAL	280	178	50	51

Pathology

The routine blood counts are listed in table II. The majority of haemoglobin estimations were routine antenatal checks. Forty-three (34 per cent) of the 125 full blood counts (haemoglobin, white blood count and erythrocyte sedimentation rate) were abnormal. Of these, six showed a rise in polymorphs as a result of a known bacterial infection. Two showed a lymphocytosis attributed to a virus infection. A leucopenia was demonstrated in three counts, all due to glandular fever. Ten cases of anaemia were confirmed. In 11

cases atypical mononuclear cells were seen: in six of these, glandular fever was subsequently confirmed by a positive Paul-Bunnell test with a typical adsorption pattern (table IV). The erythrocyte sedimentation rate was raised in 17 cases and no cause was found in five of these.

TABLE II
BLOOD COUNTS

	<i>Total number</i>	<i>Normal</i>	<i>Abnormal</i>
Full blood count (Hb., W.B.C., and E.S.R.)	125	82	43
Haemoglobin only	63	61	2
TOTAL	188	143	45

The other haematological requests are listed in table III. The erythrocyte sedimentation rate investigations were requested alone in two classes of patients:

- (i) To assess the progress of rheumatoid arthritis.
- (ii) To help in the differential diagnosis of low back pain.

TABLE III
OTHER HAEMATOLOGICAL TESTS

<i>Test</i>	<i>Total number</i>
E.S.R. only	13
Group	8
Wasserman	6
Platelet count	2
L.E. cells	3
Malarial parasites	1
TOTAL	33

Tables IV and V list all the blood chemistry and serological agglutination tests requested. Abnormal findings were repeated for confirmation. Thus the four abnormal serum uric acid results are from two patients, one of whom had gout, and the other an unexplained hyperuricaemia.

Urine tests (except pregnancy tests) are shown in table VI. The abnormal mid-stream urine results (28 per cent) were all cases of infected urine with more than five pus cells per high power field. In the majority of these a culture of the organisms was successful in providing antibiotic sensitivities. Specimens were sent to the

TABLE IV
BLOOD CHEMISTRY

<i>Test</i>	<i>Total</i>	<i>Normal</i>	<i>Abnormal</i>
Blood sugar	12	12	0
Glucose tolerance test	1	0	1
Blood urea	18	17	1
Serum uric acid	11	7	4
Blood electrolytes (chloride, sodium and potassium)	2	2	0
Serum calcium	4	3	1
Serum cholesterol	1	1	0
Liver function tests	3	3	0
Serum acid phosphatase	8	5	3
Serum amylase	2	2	0
Serum glutamic-oxaloacetic transaminase	1	1	0
Serum glutamic-pyruvic transaminase	1	1	0
"Triosorb" test (for thyroid activity)	1	1	0
TOTAL	65	55	10

TABLE V
SEROLOGICAL AGGLUTINATION TESTS

<i>Test</i>	<i>Total</i>	<i>Normal</i>	<i>Abnormal</i>
Paul-Bunnell	16	10	6
Latex fixation for rheumatoid arthritis	14	10	4
Latex fixation for lupus erythematosus	2	2	0
Latex fixation for anti-nuclear factor	3	3	0
Thyroid antibodies	1	1	0
Anti-streptolysin titre	2	1	1
TOTAL	38	27	11

laboratory again after treatment and the total number includes these repeats.

Pregnancy tests (table VII) are shown separately because they were performed by me using "Prepuerin"—a haemagglutination inhibition test. Possibly cheaper and certainly more convenient for the practitioner doing the occasional single test, is "Gravindex" a slide test using coated latex particles. Of the three false negative results, two were considered to have been performed at too early a stage in pregnancy. In both cases they were tested and found to be negative at 38 days from the first day of the last normal period, and both positive when the test was repeated one week later.

TABLE VI
URINE TESTS

<i>Test</i>	<i>Total</i>	<i>Normal</i>	<i>Abnormal</i>
Mid-stream urine (for chemistry, microscopy, culture and sensitivities)	80	58	22
24-hour urines for catachol amines	2	2	0
Early morning urines for 5-hydroxy indole acetic acid	1	1	0
TOTAL	83	61	22

TABLE VII
PREGNANCY TESTS (CARRIED OUT BY THE AUTHOR)

<i>Total 25</i>			
Positive	15	Negative	6
False positive	1	False negative	3

Table VIII shows the bacteriology investigations requested.

Table IX summarizes the requests, expressing each main group as a percentage of the total and showing the rate of investigation per 1,000 patients per year.

TABLE VIII
BACTERIOLOGICAL SWABS AND SPECIMENS

<i>Test</i>	<i>Total number</i>	<i>No pathogens isolated</i>	<i>Pathogens isolated</i>
Nose swab	3	2	1
Throat swab	7	6	1
Eye swab	2	0	2
Other pus swabs	3	0	3
High vaginal swabs	17	16	1
Anal swabs	1	1	0
Stools	3	3	0
Sputum	2	1	1
Aspirate of cyst	1	1	0
TOTAL	39	30	9

TABLE IX
SUMMARY TABLE

<i>Type of investigation</i>	<i>Total number</i>	<i>Total number expressed as a percentage of grand total</i>	<i>Rate of investigations per 1,000 patients per year</i>
X-rays	280	37.3	151
Blood tests	324	43.1	176
Urine tests	108	14.4	58
Bacteriology	39	5.2	21
TOTAL	751	100.0	406

Discussion

This analysis was originally intended for my own interest but it was felt that publication as a paper would:

- (1) show that in some parts of the country much investigation can be undertaken without need for immediate referral to an outpatient department.
- (2) provide information on which the future planning of departments of pathology and radiology may be based.

To have the radiologist and pathologist available for consultation is as important as the right to investigate, and I have profited greatly from discussing cases with them.

But is 'open-access' a right? Macaulay (1962) prepared a survey of the extent to which diagnostic services were available to general practitioners. He showed that great variations existed and that "paradoxically, the facilities for family doctors are worst where the resources are best—in the great towns". He stated in his survey that "all the pathologists and radiologists interviewed said that abuse of the services offered was so rare as to be negligible".

Murray (1960) who appears to be a champion of open-access states that in his area of Kingston-upon-Thames, "general practitioners . . . have long been accustomed to making full use of the service almost entirely without abuse, and in many instances with considerable wisdom". And he continues later, ". . . the general impression everyone has in the area is that the professional standard of service is high, and the existence of open-access laboratories and x-ray departments is given some credit for that standard".

Fry *et al.* (1964) studied the extent and nature of the use of pathological and radiological departments by general practitioners in the area of Bromley. They, too, concluded that general prac-

tioners were unlikely to abuse facilities offered by pathological and x-ray departments, and emphasized the importance of liaison between the consultants and the local family doctors. Their figures showed the variation in the extent to which general practitioners make use of the facilities, a fact which had been noted by Murray. No correlation was found between the amount of use and the length of time the doctors had been qualified, though perhaps the choice of 1940 as the dividing year for the two groups in this context was too early.

Forbes (1966), in his recent paper, found 64 per cent of his total requests from general practitioners in April 1964 had been received from doctors who had qualified since 1945, and that nine of 36 post-war doctors made more than 20 requests for investigations during that month compared with only two of the 36 doctors who had qualified prior to 1945.

A continued increase in the amount general practitioners use the laboratories and x-ray departments is to be expected. But is suitable provision for the likely increase in demands being made? Two of the arguments against open-access are the possibility of abuse by doctors making unnecessary or unreasonable demands, and the fear that open-access would lead to an uncontrollable increase in the work load. The first argument is answered very firmly in all the four quoted papers. Abuse by general practitioners either does not occur or is so rare as to be negligible.

The fear of uncontrolled additions to the work load of laboratories must be viewed against the background of the increasing demands being made upon the services by hospitals themselves. Forbes states:

“it will be seen that the amount of work done for general practitioners has increased threefold during the five-year period (1960-64), with a steep rise during the past two years. The proportion of work done for general practitioners had also gone up, but less spectacularly because the *volume of work carried out on hospital patients has increased at an even greater rate*”.

The arguments of the possibility of ‘abuse’, or the fear to provide open-access because of the additional work that may result are examples of negative thinking. Encouragement should be given to family doctors to achieve and maintain a high standard of medicine, and the provision of adequate facilities for proper investigation must surely be part of this. The paper from Bromley drew attention to the possible need for postgraduate education in the use of laboratory and x-ray aids to diagnosis, and universities and hospitals should consider emphasizing and explaining these aids in the predominantly clinical refresher courses. If, as is stated, the Ministry of Health is in favour of open-access, and if it is their genuine intention to make the family doctor into that oft quoted “corner-

stone of the National Health Service", then planning should be well in hand for the continued extension of open-access, and the expansion of existing departments. Is this, in fact, so? And if it is so then is sufficient money available to translate the plans into reality?

Summary

The number of investigations and x-rays requested by one general practitioner with open-access during the year 1965 are described and the findings discussed, and also for information to those responsible for the future planning of the National Health Service, in particular its pathology and radiology branches. It is hoped that it has shown that proper use is made of the investigation facilities, and it is argued that these facilities should be available to all general practitioners.

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Methysergide in prophylaxis of migraine. A clinical trial in general practice. JOHN WHEWELL. *Brit. med. J.* 1966. **2**, 394.

A double-blind trial of methysergide (Deseril) in the prophylaxis of migraine was carried out by 44 members of the North-east England Faculty of the College of General Practitioners. Fifty patients completed the trial. Methysergide produced a significant reduction in the duration of severe headaches. The total number of headaches, especially severe headaches, was also reduced but not to a statistically significant extent. It is interesting to note that of three patients withdrawing from the trial because of side-effects, two were taking placebo tablets and only one, who complained of nausea, was taking methysergide.