Middle Articles

The Patient and the X-ray Department

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"You're going to put me in a wheel and stand me on my head. My doctor told me." (Tears) "You're going to give me some stuff which sets inside you like concrete, and you can't ever get rid of it." "They told me to strip—to strip right down. I wasn't liking this very much. My doctor said I was only coming for an *x*-ray." "You give me this stuff to drink and it tastes terrible and makes you sick." "I don't know why you want all this information from me. The surgeon knows all about it." "You put me in front of this thing, and flash lights on and off. I've seen it all on T.V."

These are verbatim examples of comments made by patients referred to an *x*-ray department for barium meal examination. They arouse misgivings about relationships and communication between patients and *x*-ray departments. In order to determine where the failure lies it was decided in the early months of 1967 to carry out a survey of 400 consecutive patients attending an open *x*-ray department. The hospital has 220 beds, serving a mixed urban and rural community. Of the 400 patients (170 male and 230 female) 306 were referred by consultants and 94 by general practitioners. They included 86 inpatients and 314 outpatients. The groups of patients selected were those attending for barium and gall-bladder examinations, which are carried out under screen control, and intravenous pyelography. After examination each patient was asked to complete a questionary. The non-medical member of the team supervised this because it was thought that patients might feel less constrained in comment.

Results of Questionary

The first point dealt with the source and reliability of information about the examination given to the patient before he attended. If accurate diagnosis is to be achieved the radiologist must depend to a great extent on unhesitating co-operation during examination, which is not possible if the patient is apprehensive and preoccupied by what is going on around him. It is reasonable to assume that reliable preliminary information will encourage confidence.

Patients were first asked if they had been given any information from an authoritative source. Of the 400 patients 118 had previous knowledge of the examination, and in their case the question was not applicable.

Of the 282 answering this question 259 had been given no authoritative information from any source. Forty-three of these had been referred from general practitioners and 216 from consultants. Of the 23 others, 12 had been given adequate information and 11 had had some information judged by us to be inadequate ; in 11 cases the source was the general practitioner, in seven cases the referring consultant, and in five cases members of ward staff.

The first observation of interest is that such a large number of patients were given no information at all. Secondly, of total referrals a significantly larger proportion received information from general-practitioner than from consultant sources. This reflects adversely on hospital staff, since there is probably more time and opportunity in hospital to give information, in comparison with the restrictions of a busy general practitioner's surgery.

The second question of the survey concerned information from other, less authoritative sources. Again, to only 282 of the 400 was this question applicable. Of these, 72 had received information from relatives or friends. It might have been thought that such information would on the whole prove to be alarming to recipients, but in 54 of the 72 cases the information had a reassuring effect, and in only 17 had it caused apprehension.

Of the 282 patients 139 would have liked more information beforehand, and when asked in what form 61 were in favour of a leaflet which could be studied at leisure, 71 were in favour of a personal talk, and 7 would have welcomed information in either form. Fourteen wanted the personal talk with their general practitioner, 32 preferred the consultant, 24 favoured someone on the *x*-ray department staff, and 8 a member of the ward staff. Obviously circumstances of referral and acquaintance influenced this preference.

Reaction of Patients

Next we examined the reactions of patients to their visit, and as a baseline on which to assess comments they were asked what their reaction was to being referred. Of the 400 149 felt relief that they were being investigated, 103 experienced apprehension, 15 were aware both of relief and apprehension, and 133 professed indifference. Of those who experienced apprehension, in 44 it was due to fear of what was going to happen in the department, and in 74 it was due to fear of what might be found. Seventy patients felt that prior knowledge would have altered their reaction to the examination ; 230 felt that it would not. It is interesting that a few patients thought that prior knowledge would have altered their reaction adversely.

Only 18 patients were apprehensive about being examined in the dark, 332 were not. This is of some relevance to image intensification, one argument for which is that examinations can be carried out in dimmed light rather than in total darkness.

Fifty-five patients were upset in some way by the examination. In the majority of these the specific upsetting factor was bowel irritation due to agents used in preparation for barium enema.

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This is a vexed question in practically every x-ray department. It seems impossible to devise any satisfactory method of preparation which gives a clean colon in more than about 85% of cases. The others appear to be refractory to all methods. It is administratively convenient to employ routine methods of preparation, but inevitably with this practice the occasional patient experiences discomfort. Some departments carry out immediate preliminary lavage, for which special machines may be used. This requires extra staff time, often results in considerable discomfort, and it may even fail. (Every radiologist has had the experience of filling a poorly cleansed bowel with barium to find in the post-evacuation phase that the patient has evacuated the liquid barium past the faeces, leaving them unmoved.)

Various other upsetting factors were mentioned; these differed so widely in emphasis that it would be difficult to tabulate them. Instead they provide the foundation for the following comments.

Patients were asked for any suggestion for improving the examinations from their point of view, and ideas came from 49 of the 400.

Complexity of X-ray Department

Despite a greater proportion of patient-time spent in the modern x-ray department most laymen, and even some doctors, do not fully appreciate its complexity. Increasing specialization means subunits for neuroradiological, vascular, and cardiovascular procedures which require highly complicated equipment and specially trained teams. In some centres even routine barium work has its own purpose-designed suites. Recently additional auxiliary procedures, such as radioisotope scanning, ultrasonics, thermography, and gastrocamera investigations, have been added to the work of x-ray departments (giving rise to the suggestion that the anachronistic name "x-ray department" should be replaced by "department of special diagnosis"). It is understandable that many patients, conditioned by the more popular television programmes to the idea that an x-ray examination is a matter of a simple photograph, are disturbed or frightened by their first contacts with the department. Our preoccupation with accurate diagnosis is excusable, but we should examine our attitudes periodically to ensure that this does not conceal indifference to the patient's predicament.

The problem is three-sided, with patient, referring doctor, and radiology department at the points of contact. Basic misunderstanding is created at the initiating point of the service if the referring clinician does not explain the examination to the patient. This initial failure of communication is probably the indirect result of past attitudes when x-ray examinations were of the simplest, clinicians interpreted their own films, and x-ray departments were regarded as subordinate technical workshops. Many patients leaving the x-ray department do not know that their examination has involved a specialist opinion, and it would be helpful if the patient were told this beforehand. Explanation should be simple, emphasizing those aspects of the examination of most significance to the patient's comfort and well-being. He should be advised that at the time of the consultation he may be asked details of his illness—for example, the duration of symptoms, distribution and frequency of pain, etc.—and that he should have the details of his complaints clearly in his mind before reporting to the x-ray department. All this implies close correlation between the radiology department and referring doctors, and obviously all clinicians should have a working knowledge of each examination before referring patients for it.

Explanations to ward patients are often neglected because there is no specific delegation of the responsibility. While it could be regarded a duty of ward sister or house doctor, it might be of advantage for radiology departments to supply explanatory leaflets adaptable for inpatients as well as outpatients. For example:

Notes for Guidance

During the consultation the specialist will ask for details of your illness (for example, site, duration, type of pain; appetite; weight loss; bowel habit), and it will be helpful if you can have these details clearly in your mind before attending.

You will be asked to drink a special liquid (barium) with a slight vanilla flavour while the specialist examines you both standing and lying down behind the x-ray screen. Most of the examination will be carried out in the dark.

The barium will pass normally through the bowel after the examination and you may notice your bowel motions to be light-coloured for several days. Barium tends to cause constipation, and it may be advisable for you to take an aperient the night following the examination and possibly on subsequent nights.

Please note that although every effort is made to adhere to the appointment time, a short wait is sometimes unavoidable.

You will be in the department for approximately ..... hours/minutes.

If you are unable for any reason to keep this appointment please notify the department as soon as possible.

(The enclosed sheet gives the times of the regular local 'bus services to and from the hospital.)

It is particularly important that there should be special notes for parents of children to be examined, so that they can take time in familiar home surroundings to explain fully to the child what is going to be done, using his own customary colloquial terms—for example, for defaecation, micturition, anus, etc.

Reasons for Complaint

Within the department several points arise which singly are trivial but which in aggregate can cause concern or even distress. Some patients dislike the impersonality of being given a card to take to the x-ray department; to them it symbolizes a label. Some, perhaps already upset by food abstention, weakness, or pain, may be distressed by the unpleasant sight, sound, or smell of other patients in the waiting-room. Departmental waiting-rooms inevitably contain a great variety of sickness, and more thought should be given to their design so that patients could separate themselves one from another. Lack of privacy often causes concern. Curtained changing-cubicles are common, but there is a tendency for curtains to lose their rings, and they are generally regarded as not very private. All too frequently the modesty of patients is overlooked. X-ray gowns are often inadequate and are rarely provided in a variety of sizes, yet this should be fairly easy and would save embarrassment. It is not unknown in some hospitals for patients clad in inadequate x-ray gowns to pass through the waiting space exposed to the gaze of other patients when conducted to and from the x-ray room, a situation made worse when the journey is from the x-ray room to the toilet after barium enema, with all the added embarrassment of incontinence. From patients who have commented on this it is quite obvious that it can have a profound effect on morale. Humiliation by ridicule is, after all, one of the basic principles of brainwashing.

Certain specific complaints related to coldness, hardness, and slipperiness of the x-ray tilting table top. Slipperiness produces a feeling of insecurity, particularly to the maimed and elderly, and many find difficulty in moving and turning over on slippery surfaces. Manufacturers might consider premoulded pliable plastic tops with advantage.

Considerable misapprehension exists about the difficulties and disciplines under which radiologists work during screen examinations. In conventional screening, patients' impressions may be exaggerated by a feeling of isolation in the dark, and terseness on the part of the radiologist resulting from concentration

may be misinterpreted. It is perhaps not understood that screen examinations are totally objective and that the radiologist must achieve accurate diagnosis with minimal screening time, any unnecessary prolongation of which increases radiation hazards to both patient and radiologist. It is also perhaps not appreciated that he does not see actual lesions, but a multiplicity of shadows which are dim, superimposed, and constantly mobile. From these he must make his diagnosis, his task being further complicated by innumerable variations of obesity, anatomy, physiology, and post-surgical appearances, and made more difficult if the patient is weak, deaf, or arthritic. A conscientious radiologist focusing his attention on the internal problems of his patient cannot be discursive.

Patient's Welfare

During our review we became increasingly aware of the need to have some member of the departmental staff responsible in a general sense for the patients' welfare. Though relevant to most hospital departments it is of particular importance in a radiology department because x-ray examinations are so far removed from a patient's everyday experience. Secretarial staff are preoccupied with office routine, thinking of the patient mainly in terms of filing data. Radiographers are preoccupied by radiographic techniques, thinking of their patients mainly in these terms. In present circumstances overall personal care of the patient falls into no man's land. We believe that there is a case for a special receptionist who should correlate patients' and departmental needs, provide a bridge of communication, and also liaison between outpatients and admission services, so that admissions for radiological investigations could be regulated to save the time of the patient and wastage of bed occupancy (Ministry of Health, 1967 ; Samuel, 1968).

Though restricted to relatively low numbers because of the limited opportunities to extend our survey in a busy department, nevertheless our findings strongly support the observations and recommendations of the Cohen Committee (Ministry of Health, 1963).

Industry can teach us a lot about public relations, which we tend to neglect because we have no profit motive, no obvious immediate medical gain, and limited staff. It is easy but pernicious to accept uncritically practices of the past as standards for the future. There is plenty of room for new thinking.

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Practical Method of Drug Administration in a Peripheral Hospital

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Summary: A system to reduce the dangers of drug-prescribing and administration has been evolved in the County Hospital, Hereford. Prescribing regulations have been designed which aim to reduce the possibility of error, and the prescription sheets virtually never leave the ward when in use. A copy of the prescription sheet, known as the pharmacy card, is sent to the pharmacy when new drugs or further supplies are required. The chief pharmacist has been able under the system to maintain supervision of safety in the use of drugs.

Numerous reports have been published of the dangers of certain practices in hospital drug-prescribing during the past 10 years (Ministry of Health, 1958 ; Trillwood, 1959 ; Barker and McConnell, 1962 ; Crooks *et al.*, 1965 ; Vere, 1965 ; Wallace, 1965). Two major attempts have been made to try to combat these dangers and also to provide further information about them, the one in Aberdeen described by Crooks *et al.* (1965, 1966–7) and the other in the London Hospitals by Vere (1965, 1966–7).

Many features of the Aberdeen and London Hospital schemes have been incorporated in the Hereford system, which has made particular use of the Aberdeen analysis of safety (Crooks *et al.*, 1965) and has been designed entirely with a view to safety and convenience.

Crooks *et al.* (1965) point out the advantages of a clinical pharmacist, and it is an attractive proposition, particularly in that it facilitates the passage of information between the medical and the pharmacy staff. However, there are some possible disadvantages. It is less economic to run, in terms of staffing, than a centralized service, and most hospital pharmacies are already understaffed and working under considerable pressure. Also, the chief pharmacist is the person in his department most closely in touch with information about drugs, their relative efficacy, toxicity, alone and in combination with other drugs, side-effects, and cost, and can be of invaluable assistance to clinicians in these fields. He also forms a vital link between such a body as the hospital infections committee—perhaps outlining, for instance, important recommendations on antibiotic therapy—and his staff. It is felt that, in peripheral hospitals in particular, any loss of contact between the chief pharmacist and his staff is to be avoided where possible, and, furthermore, liaison between the medical staff and the chief pharmacist should be as close as possible.

Hereford System

One of the greatest problems in designing the Hereford system has been to reconcile a central pharmacy, which it is felt cannot at the moment be avoided even if this were desirable, with the principle that the patients' prescription sheets should never leave the ward. The scheme described below has provided a reasonably satisfactory solution. It should also be pointed out that it is the policy in the Hereford Hospitals Group to keep only very limited drug stocks on the wards.

Kardex steel desk units equipped with 38 pockets for 10 by 8 in. (25 by 20 cm.) cards are used to hold the patients' pre-

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