

13 The provision of day-hospital facilities and an active rehabilitation programme should be seriously considered, and in this connection the influence of the health centre in promoting modern concepts of ambulatory care will play an increasingly important role and must be taken fully into account.

14 There is an urgent need for more research into the problems of "blank" patients, and it is hoped that the facilities available in joint assessment units will encourage activities of this kind. Medical students both at undergraduate and postgraduate level require greater exposure to "so and so" in the course of their studies.

15 To implement these recommendations we recognise that a considerable expansion and change of emphasis of the "blank" services must be envisaged but we submit that our report provides a factual basis for further planning. We are unanimous that this must be given a high degree of priority. Health boards should be encouraged to consider the appointment of a senior officer to co-ordinate developments in "so and so" and to liaise with both the various professional interests involved and officers of the central department. The question of communication is of vital importance, and a team spirit should be engendered at all levels. There is also a pressing need for effective publicity for the "so and so" services in different areas. Effectively

projected, this would benefit both the professional workers and the users of "such and such" services in future. Publicity of this kind should be carefully handled in conjunction with public relations officers of local authorities and all other interested parties.

Postscript

It must be recognised that a sprinkling of peculiar phrases is a sure sign of being "with it." All reports should have a selection of these. Even if they mean little or nothing to the writer there is a chance that the reader will think they do. Examples include some reference to concepts such as "over-arching structures," "conceptualised overviews," "programme accountability," "eligibility determiners," "self-transferring networks," "out-reach activity mechanisms" with, of course, "managerial unification" and "participative planning" with recognition of "major secondary priorities" and what may be a euphemism for theft—"cross funding." Taken seriously, the opportunities for verbal issue fudging are almost infinite.

General Practice Observed

Clinical judgment and antibiotic use in general practice

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Summary

Illustrated booklets that contained standard physical but variable social and psychological information relating to 16 patients with sore throats were posted to 1000 general practitioners. The doctors were asked whether they would prescribe antibiotics in each of the cases presented. Replies were received from 634 doctors and it was found that the variations in social and psychological history provided had significantly affected the doctor's responses.

The complex skill of clinical judgment is the outcome of a set of processes equally applicable in nature, though not in relevance, to the different disciplines in medicine. These processes include the ability to identify the physical and non-physical (psychological, behavioural, and social) components of an illness and knowledge of the appropriate measures available for management of each component identified. Appropriate judgment implies the taking of an overall decision that takes into account both the physical and non-physical reasons for the consultation and reflects the possible risks and benefits of positive therapeutic as against passive action.

The prescribing of drugs is one important end-product of the process of clinical judgment and one that is causing concern, in terms of both quantity and quality, throughout the profession. Aside from attempts to improve the relevance and effectiveness of undergraduate and postgraduate education, the principal attempt at control at present is the crude and widely mistrusted system of cost audit in general practice.

Real improvement in the quality of prescribing requires a knowledge of the thinking behind decisions to prescribe, and this in turn requires a degree of dissection and quantification of the components of clinical judgment. Within general practice the recent emphasis on the way in which doctors construct diagnoses ("... in physical, psychological, and social terms"¹) has perhaps been at the expense of study of how the doctor uses the diagnoses he has made. This is in part because of, and also contributes to, the perpetuation of the view that clinical judgment in general practice is an art beyond even approximate scientific description and evaluation.

This paper attempts to demonstrate, firstly, the feasibility of designing studies capable of examining the components of clinical judgment in general practice—other studies have been described elsewhere^{2, 3}—and, secondly, that awareness of non-physical features in a consultation for physical illness (in this case the symptom of sore throat with the sign of localised redness) may influence in a measurable way the doctor's decision to prescribe a physical remedy (in this case an antibiotic).

Method

The throats of some 50 patients complaining of sore throat were photographed and 16 transparencies showing varying degrees of redness of the throat selected. These were reproduced on graphic

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cartridge paper, four to the A4 page, using a four-colour offset lithography technique. A standard physical history was issued as a preface to the illustrations and some additional social or psychological information or both added below each illustration. A second printing was prepared in which the social and psychological information below three of the four reproductions on each sheet was changed; the information below the fourth was left constant to act as a control.

The 16 reproductions with various combinations of the alternative social and psychological histories were bound into a booklet (fig 1) with the clinical history as preface (fig 2). A prepaid reply card was coded to correspond to the combination of histories in the booklet,

and the doctor was asked to indicate whether or not he would have prescribed an antibiotic to each of the 16 "patients" presented in the booklet. The reply card was anonymous, but the doctor was invited to sign his reply if he wished to receive a copy of the results of the study. An explanatory letter was included in the mailing, and copies of this are available from the author.

Booklets were posted to 1000 randomly selected doctors taken from those who had registered the qualification of MRCP or FRCP and excluded those likely to have retired from active practice.

Results

In the first month 634 replies (63%) were received. There were 593 usable returns; of the remaining 41 responders, 14 were no longer in clinical practice, four returned blank or half-completed cards, and 23 expressed misgivings about the design of the study or the quality of the reproductions.

The replies were analysed for the numbers of doctors indicating that they would or would not prescribe antibiotics to each of the alternatives of psychological/social history for the 12 patients forming the experimental part of the booklet. Differences at a significant level ($P < 0.01$) were found for six patients and at a possible significant level ($P < 0.05$) for a seventh. In five cases no significant difference was found. The four remaining illustrations that had been reproduced without change of psychological/social history in all booklets to act as controls for the effect of possible variation in the colour intensity of the illustrations were answered consistently by all groups of responders. The details of the replies are shown in table I.

Individual doctors ranged in their prescribing of antibiotics to the 12 test patients from doctors prescribing to no patients to some prescribing to all patients (each doctor received six with a history from column A and six with a history from column B of table I). Where history A was given, 36% of all replies were "yes" to prescribing an antibiotic; the corresponding figure when history B was given was 58%.

Discussion

METHOD

Although most responders did not express any views about the design of the project, some reasoned criticisms were made; most of these related to the quality of the illustrations. Several of the reproductions did fall below the quality originally hoped for, but most compared favourably with the best periodical or textbook reproductions available. The benefits of using a standard visual presentation instead of inconsistently used diagnostic or descriptive terms (pharyngitis, injection, inflammation) are obviously attractive and would be outweighed only by seriously deficient reproductions. The real risk of colour changes during a large printing run was minimised by one person selecting the batches. The consistent "prescribing" to the control patients in each batch of illustrations produced confirmed the belief that a standard stimulus was being offered to the participating doctors.

A few doctors complained that the clinical information made available was inadequate. The information offered was based on previous studies of the way in which general practitioners carry out consultations for respiratory illness²⁻⁴ as well as the possibly subjective views of my colleagues. This criticism seems unlikely to have influenced the result presented above.

ANTIBIOTIC USE

Previous work^{2,5} has suggested that almost all consultations for respiratory symptoms are regarded by both doctors and patients as primarily physical in type. This study makes no claim to measure the contribution that non-physical features seen at respiratory illness consultations may be making to antibiotic prescribing in general practice: rather it attempts to demonstrate that the use of an apparently physical form of management may be influenced—perhaps substantially under some circumstances—by clinical information of a non-physical nature. Further

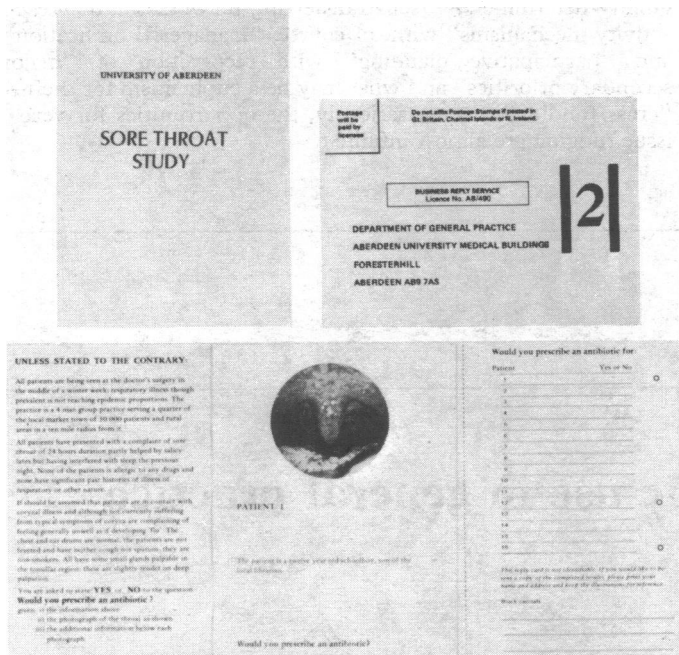


FIG 1—Booklet used for project described in text.

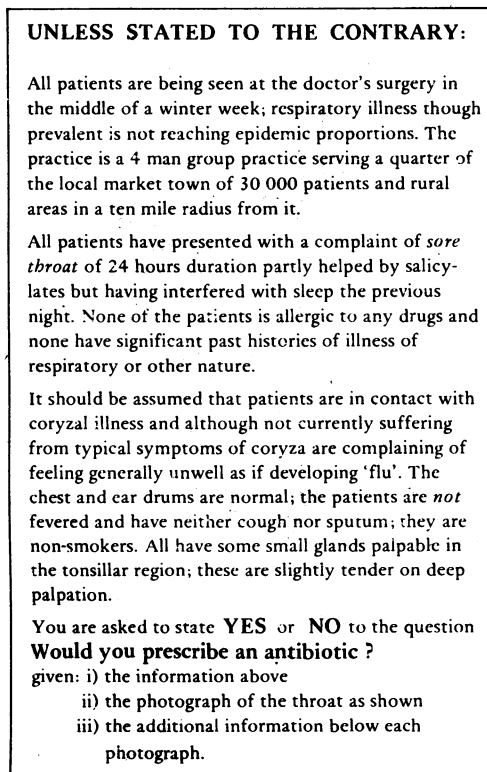


FIG 2—Information presented to doctors as preface to book of illustrations.

TABLE 1—Relationship of antibiotic "prescribing" by 593 doctors to variations in social/psychological history in patients with matched physical symptoms and signs of respiratory illness

Patient number	Psychological/social history "A"		Psychological/social history "B"		Significance of difference
	Details	% Doctors prescribing antibiotic	Details	% Doctors prescribing antibiotic	
1	Shop assistant (age 19)	29	Shop assistant (age 19)—mother died four weeks previously from carcinoma of breast	27	NS
2	Child (age 8) whose father is under-manager of local supermarket	35	Child (age 8) whose father is senior partner in firm of local solicitors and chairman of the community health council	43	NS
3	Mother (age 24) of three children	35	Mother (age 24) of three children, who adopts an aggressive attitude to the suggestion that her symptoms are beginning to settle spontaneously	34	NS
4	School teacher (age 39), spinster	44	School teacher (spinster age 39)—frequent recurrent consultations for minor respiratory illness	37	NS
5	Son (age 7) of local butcher	93	Son (age 7) of local butcher seen on Friday evening preceding a Bank Holiday weekend	94	NS
6	Son (age 12) of newly appointed district medical officer	16	Son (age 12) of newly appointed district hospital consultant surgeon	24	<0.05
7	Child (age 14) of local postman	42	Child (age 14) of postman who lives at furthest distant point of practice	57	<0.01
8	University student (age 18)	23	University student (age 18) due to sit degree examinations next week	69	<0.01
9	Mother (age 28) of four children; all children now of school age	30	Mother (age 28) of four children; two youngest are 18-month-old twins with which she is barely managing to cope	51	<0.01
10	School teacher (age 30)	40	School teacher (age 30), interview for promotion due in 48 hrs time	67	<0.01
11	Elder child (age 6) of two; parents both work in husband's joinery firm	36	Elder child (age 6) of two; parents both work in husband's joinery firm. Younger child in hospital with pneumonia	78	<0.01
12	Mother (age 35) of teenage sons	22	Mother (age 35) of teenage sons due to go abroad on holiday next weekend	61	<0.01

NS = No significance.

Percentages calculated on numbers varying because of different composition of booklets distributed. Range of n = 282—305 replies.

studies might allow some of the non-physical influences to be grouped in regard to their influence on various forms of management. For example, reference to table I suggests that under the conditions of the present experiment social conditions had a greater influence than behavioural characteristics (aggressiveness or frequency of consultation). Although a change in social class did not produce a significant effect in patient 2, the possible influence of intraprofessional factors in patient 6 may strike a note of realism to some.

CLINICAL JUDGMENT

The three main parts of a consultation can be simply portrayed as in fig 3. The ability to define and list the various physical and non-physical components of the overall problem ("a" and "b") is a clinical skill, whose acquisition should be promoted by well-supervised training. In hospital medicine the emphasis will be towards a; in general practice b has a proportionately greater relevance. Decision c should automatically follow a as

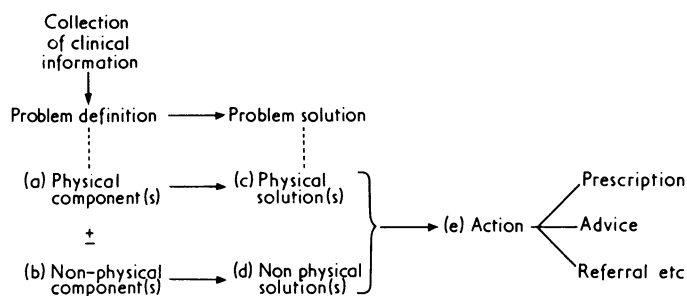


FIG 3—Representation of some components of clinical decision on management.

knowledge, although on occasions the decision c may take the form of a choice from a list of possible courses of action each of which should have been evaluated. If the knowledge required to make decision c is not available research is required. The physical solution to a physical component of illness will not necessarily be the same inside and outside hospital practice as facilities for monitoring progress of an illness are often substantially different.

Similarly it might be argued that one correct decision d should automatically follow b; but the non-physical component may be unique, being constructed in terms of the individual patient consulting and d may thus be incapable of being defined in absolute terms. Whether the making of decision d represents knowledge or art or skill is a matter for debate elsewhere. My hypothesis is that the eventual overall decision which is taken—e—represents the doctor's balancing of c with d and is what is described as clinical judgment. This decision can only be discussed and evaluated constructively given knowledge of how it has been taken—that is, with the ability to comment separately on the elements a, b, c, and d of fig 2.

It has recently been suggested^{6,7} that an independent clinical territory, a particular set of clinical skills, and a recognisable clinical philosophy are among the credentials required of a discipline seeking its own identity. The independent clinical territory of general practice is not in dispute. Its set of clinical skills includes the way in which the a and b components of problem definition are fashioned, and its clinical philosophy includes the way in which the c and d components of problem solution are balanced. What is appropriate clinical judgment to the general practitioner (e) may thus be different from what seems appropriate to those practising in different disciplines.

Freedom to exercise independent clinical judgment is a jealously guarded right not only of general practice and general practitioners but in all spheres of medical practice. But the right is misused if it is seen as an excuse for escaping from clinical or

intellectual accountability. The right carries a responsibility to use judgment openly, flexibly, and critically. Studies such as that reported in this paper may provide both technical and conceptual help for the proper exercising of this responsibility.

I am particularly indebted to Mr E G Smith, deputy director of the department of medical illustration in the University of Aberdeen for his unfailing interest and help in producing the booklet on which this report was based. I also thank the many general practitioners whose replies made the analysis possible, Miss I Dingwall-Fordyce for statistical help, and the Wellcome Foundation Ltd for meeting the costs of postage.

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What I would say to the Royal Commission

Open letter to the chairman

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Dear Sir Alexander,

I have been asked to write to you about what I think your Royal Commission should consider. I do so with humility, and on the understanding that the views I express are personal ones.



Malcolm Aylett

Please assume that I am an average general practitioner or, anyway, that I have no particular axe to grind. My career so far, in fact, completely lacks any medico-political experience. I have never, for instance, been on a local medical committee or been active in British Medical Association affairs; have never spoken or written on any remotely related subject; and, furthermore, I have in my time voted for Parliamentary candidates of all three political parties. On reflection, it occurs to me

that the person who wrote and asked me to make this approach to you may well have done a "Lord Bagpuise" on me. You will remember how, in Elspeth Huxley's novel *The Merry Hippo*, the retired, pig-farming and quite unsuitable Lord Bagpuise was mistakenly asked to join a Royal Commission (instead of a well-qualified fellow peer of the same name). I hasten to add that this whim refers to my own position only and not, of course, to any member of your commission.

Membership of the commission

Which brings me first of all to the question of your membership. I am sure that I speak for most of my colleagues when I say that we were surprised that it took the Prime Minister so long to decide to appoint you as chairman. The report of your committee which inquired into the regulation of our profession has been widely acclaimed and we look forward to its early implementation. On the other hand, the actual membership of your commission has been criticised by many of us who have complained that it should contain more doctors, especially a hospital consultant. How humiliating that the Secretary of State should have to spell out to us that you are not chairing a working party or a committee but an independent commission. I can only say how pleased I was that the president of my royal college seemed already aware of this distinction and made no such improper demand for representation.

The Commission will hear evidence from many sources and it will be necessary to weigh impartially the relative claims and arguments for the development and allocation of resources to the various parts of the ever-expanding service. But I wonder if the much more fundamental issues are why the service expands as it does; why there are apparently insatiable demands by both society and the health professions; and whether it is not in these areas that much new thinking must be done.

Unholy alliance

No one can deny that the rapid technical advances of the last two decades have reduced the suffering and enhanced the quality of life of thousands of our patients. A more rational division of labour, and more appropriate education of those giving primary health care, have contributed greatly towards fulfilling the real medical needs of the population. But this progress has been undermined by the great conspiracy between doctors and patients to increase their interdependence, to encourage an increasing medicalisation of society's problems, and by the resulting escalation of work demanded of the Health Service. This process is socially undesirable and, since it is a particularly expensive way of dealing with the problems, unnecessarily diverts the nation's resources away from services of greater benefit to society as a whole.

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