

International sore throats

F. M. HULL, MB, FRCGP

General Practitioner, Wellesbourne, Warwick; Clarkson Senior Clinical Tutor in General Practice, University of Birmingham Medical School

SUMMARY. This paper reports on an international study of the diagnostic behaviour of doctors presented with patients complaining of a sore throat. Differences were found between individual doctors' predicted and actual behaviour, and between the behaviour of doctors in different countries.

Introduction

THE European General Practitioner Research Workshop (EGPRW) began some years ago as an informal group of research-minded doctors in Northern Europe and the North of England. It has now grown into a formal organization with a constitution which consists of representatives from 12 European countries and observers from Israel, the United States and Australia. The aims of EGPRW are to encourage research, to foster and co-ordinate multinational studies, to exchange experience and to develop an internationally recognized scientific basis for general practice. Barriers of language and custom, and differences in the organization of health care, have made its work difficult, have required great patience and have led to much discussion. This paper reports on an international study undertaken by the Workshop. The study encountered both the common problems of audit and those of internationalism.

Initially the Workshop intended to examine diagnostic pathways in various countries. Progressively simpler protocols for such a study were rejected because of the enormous variations introduced by national differences in health care and culture. Eventually, after a pilot study had been carried out in several countries, the Workshop decided to examine the diagnostic behaviour of doctors when presented with the problem of a child under the age of 15 with a sore throat. The study sought to answer two questions:

1. Is the doctor's predicted behaviour the same as his actual behaviour?

2. Is the doctor's behaviour the same in different countries?

Method

The method used derives from a study of how British doctors manage a simple symptom such as vaginal discharge (Hull, 1978). In each country a national representative was appointed who co-ordinated and, where necessary, translated for his national group. A first questionnaire asked doctors to list under the headings History, Examination and Investigation, those points which they considered to be of diagnostic importance. They were also asked to assess how frequently they believed they sought information on each point. A simple scoring system, described in detail elsewhere (Hull, 1978), allowed a numerical value to be placed on each doctor's assessment of the priority of the information to be sought. From the individual doctors' figures it was possible to produce a mean figure for each national group.

At the suggestion of the Norwegian representative, a number of ear, nose and throat (ENT) teachers were approached in several countries and asked to complete the questionnaire. This was to provide a theoretical standard for comparison.

Some months after the results had been collected from each doctor a second questionnaire was sent. This was designed to collect data relating to similar cases and to measure what the doctor actually did in gathering diagnostic information.

Sixteen ENT specialists teaching in medical schools and 176 general practitioners completed the first questionnaire. The ENT specialists were from the UK (10), Holland (4), Denmark (1), and Finland (1). Because it was thought that there might be a difference in behaviour between British general practitioners working in research or academic general practice and those not so engaged, the British doctors were divided into two groups. There were 22 doctors in the academic/research (ACRE) group and 20 in the remaining general practitioner group (UKGP). Other countries were represented as follows: Belgium 22, Denmark 18, Australia 17, Holland 14, Hungary 14, Finland 12, Israel 11, USA

11, Canada six, Sweden five, and West Germany four.

The second questionnaire was returned by only 68 (39 per cent) doctors. They reported as follows on a total of 632 cases—UKGP: 17 doctors, 155 cases; ACRE: eight doctors, 75 cases; Hungary: 13 doctors, 116 cases; Israel: 10 doctors, 100 cases; Holland: nine doctors, 84 cases; Australia and the United States each sent returns from three doctors, each of whom reported 29 cases. Five doctors from Belgium, Sweden, Canada and Finland reported a total of 44 cases. The survey took place over 18 months. This extended time-scale, though necessary, partly contributed to the low return rate for the second questionnaire. Some doctors reported difficulty in completing the second questionnaire in that they felt they were recording what they wished to be seen to be doing, rather than what they were actually doing.

Results

Tables 1, 2 and 3 show the figures for history, examination and investigation. Each table compares the predicted results of the 16 ENT teachers and the 176 general practitioners with the actual results of the 68 general practitioners who returned the second questionnaire. The greatest scatter of questions related to history (Table 1). There was little difference between the predicted behaviour of the ACRE group compared with UKGP.

These tables show a pattern in which the ENT teachers predict a high standard and the general practitioners a lower standard; actual behaviour of the 68 general practitioners attains a lower standard still.

Tables 4 to 6 show the results of the second questionnaire. Table 4 shows the points sought by doctors in exploring the history of the illness. The most common were duration, the presence of fever and cough, a

Table 1.* Predicted results and actual results—History.

History	Predicted results		Actual results —68 general practitioners
	16 ENT teachers	176 general practitioners	
Duration	3.8	4.3	3.4
Fever	2.1	3.5	3.2
Previous attacks	3.5	2.2	1.2
Pain on swallowing	1.9	2.0	1.0
Cough	—	2.0	1.9
Contacts	—	1.4	—
Ear symptoms	2.1	1.3	—
Any other symptoms	1.2	1.0	—
Nasal symptoms	2.3	—	—
Painful neck	1.4	—	—
Severity	1.3	—	—
Off school	1.3	—	—
Systemic upset	1.2	—	—
Bleeding diathesis	1.2	—	—

*In tables 1 to 6 the maximum score is five and scores under one are excluded.

Table 2. Predicted results and actual results—Examination.

Examination	Predicted results		Actual results —68 general practitioners
	16 ENT teachers	176 general practitioners	
Throat	4.5	5.0	4.9
Neck glands	3.8	4.5	4.0
Ears	2.3	2.9	2.0
Chest	—	2.2	2.1
Temperature	1.3	1.7	1.4
Rash	—	1.0	—
Lymphadenopathy	—	1.0	—
Nose	2.9	—	—
Nasopharynx	1.6	—	—

Table 3. Predicted results and actual results—Investigations.

Investigations	Predicted results		Actual results —68 general practitioners
	16 ENT teachers	176 general practitioners	
Throat swabs	2.3	1.9	—
Full blood count	2.0	1.6	—
Glandular fever test*	1.6	1.3	—
Sinus x-ray	1.4	—	—

*A variety of tests was specified for this purpose.

history of previous attacks, and pain on swallowing. In Britain, Hungary and Australia the duration of symptoms seemed of more interest than to doctors in Israel, Holland and the United States. The presence of fever seemed important in all countries except the UK. Australian and Hungarian doctors attached more importance to cough.

Table 5 shows the results for examination. Almost all doctors examine the throat and the majority check the regional neck glands. Australian doctors often measure the temperature. Israeli and Australian doctors examine other systems more widely than other doctors.

Table 6 shows that few doctors carry out investigations. In all the 632 cases, only 109 throat swabs were taken. Twenty-seven of these swabs were taken by the three American doctors in treating their 29 cases; 40 more were taken by the Israeli doctors, who reported 100 cases; in the remaining 503 cases only 40 swabs were taken. This different pattern of behaviour is remarkable and raises questions about the importance of throat swabs.

Discussion

Despite the poor returns from the second questionnaire, the study provided clear answers to the original questions. There is a difference between a doctor's predicted

Table 4. Comparison of the actual behaviour of national groups of doctors in reaching a diagnosis — History.

History	All Doctors* 68 Doctors 632 Cases	ACRE 8 Doctors 75 Cases	UKGP 17 Doctors 155 Cases	Holland 9 Doctors 84 Cases	Hungary 13 Doctors 116 Cases	Israel 10 Doctors 100 Cases	Australia 3 Doctors 29 Cases	USA 3 Doctors 29 Cases
Duration	3.4	3.7	4.0	2.3	4.0	1.9	5.0	2.2
Fever	3.2	2.1	1.6	3.2	5.0	3.5	4.3	3.1
Cough	1.9	1.8	1.5	1.6	3.4	—	4.1	1.6
Previous attacks	1.2	1.8	1.5	—	—	1.0	1.2	1.0
Pain on swallowing	1.0	—	1.1	1.5	1.0	1.0	—	—
Ear symptoms	—	1.5	1.2	—	1.5	—	—	—
Contacts	—	—	—	—	—	—	1.6	—
Systemic upset	—	2.1	—	—	—	—	1.6	1.0
Rash	—	—	1.0	—	—	—	—	—
Vomiting	—	—	—	—	2.0	—	—	1.0
Nasal symptoms	—	—	—	—	1.4	—	—	—

*Five returns from Belgium, Sweden, Canada and Finland appear in the total but are not shown individually.

Table 5. Comparison of the actual behaviour of national groups of doctors in reaching a diagnosis — Examination.

Examination	All doctors	ACRE	UKGP	Holland	Hungary	Israel	Australia	USA
Throat	4.9	5.0	4.9	4.9	5.0	4.1	4.8	4.8
Neck glands	4.0	4.3	4.3	3.6	3.9	3.4	4.7	3.6
Chest	2.1	1.5	1.0	1.5	4.0	1.5	4.3	1.6
Ears	2.0	2.6	1.6	2.4	2.1	—	2.8	2.1
Temperature	1.4	1.8	1.4	—	—	1.5	4.5	2.6
Pulse	—	1.3	—	—	—	—	—	—
Nose	—	—	—	1.0	—	—	—	—
Abdomen	—	—	—	—	2.0	1.1	—	—
Heart	—	—	—	—	—	1.7	—	—
Rash	—	—	—	—	—	1.1	1.6	—
Spleen	—	—	—	—	—	1.2	1.2	—
Lymphadenopathy	—	—	—	—	—	1.0	2.1	—
Neck stiffness	—	—	—	—	—	—	1.9	—

Table 6. Comparison of the actual behaviour of national groups of doctors in reaching a diagnosis — Investigation.

Investigation	All doctors	ACRE	UKGP	Holland	Hungary	Israel	Australia	USA
Throat swabs	(0.9)	—	—	—	—	1.7	—	4.7
Full blood count	—	—	—	—	—	1.1	—	1.9
Urine	—	—	—	—	1.2	—	—	—

and actual behaviour. There is a difference in the behaviour of doctors in different countries.

This international study confirms the reported difference between predicted and actual behaviour in reaching

a diagnosis from a selected symptom (Hull, 1978), and also shows an additional standard, that of the laryngologists. The gradient from teacher, through what the general practitioner believes he does to what he actually achieves, is important, and has wide implications. Medical students are taught what to do. Later, in practice, they find that this is impractical and respond by finding a more appropriate method. But they still preserve an image of the 'right' way as a legacy from their undergraduate training. There is a shortfall between this 'right' way and what they actually do. This shortfall, earlier referred to as the 'paranoia factor', may have a great deal to do with doctors' reluctance to subject themselves to audit.

The differences in behaviour between doctors of different nationalities is more difficult to analyse. There are many possible reasons for such variation. Most of these arise from differences in systems of health care and culture, but unravelling these requires a much more sophisticated study. However, one clear finding is that, with the sole exception of Israeli doctors, there appeared to be consistency within national groups. Most doctors train in the country in which they practise, but Israeli doctors may have qualified in almost any country. It is possible that the reduced consistency between Israeli doctors reflects this pattern.

The results of this investigation are modest and, as often happens, ask more questions than they answer. Yet, more important than the results, is the fact that the study has happened. General practitioners in different countries have demonstrated that they can co-operate to produce international comparisons. If we are doing things differently in different countries, we should ask why, for each may have much to teach the others. This international project has begun to meet the stated aims of the Workshop. It has established a method and a system of international co-operation which can now be applied to other symptoms such as low back pain.

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Application forms available from: **Mrs M. A. Williams, General Practitioner Department, British Postgraduate Medical Federation, 14 Ulster Place, London NW1 5HD. Telephone: 01-935 8173 Ext 4.**

Reference

Hull, F. M. (1978). *Journal of the Royal College of General Practitioners*, 28, 714-8.

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Health Service Commissioner

My investigation revealed that there had been uncertainty at all levels as to the procedures to be adopted in obtaining a patient's case notes. Opinions ranged from those of the consultant treating the patient, who considered that both his consent and that of his patient should always be sought, to that of the legal adviser who considered such consent was unnecessary both in law and in practice. I discovered too that the guidance in the departmental circular had not been wholly positive in respect of cases where a patient is contemplating, or taking, legal action against an authority which has custody of his or her records. But the circular and subsequent guidance were, I found, quite clear that in all cases with medical implications the doctor concerned should be consulted, and I fully endorsed the view of the Department that the technicality of legal ownership should not be a major factor influencing policy in this area. I further considered that a health authority should not allow itself any greater privilege in respect of access than it would allow other employers. I felt the legal adviser had been wrong in not seeking consent even though he considered that technically it was not necessary. I expressed the opinion that even the legal basis of his argument was questionable.

In my conclusion, I expressed concern about the manner in which the complainant's case notes had been handled and what I described as "the lack of sensitivity in dealing with the delicate and important issue of confidentiality;" and I expressed the hope that a clearer policy and procedure would be formulated without delay.

Source

Health Service Commissioner 1979-80 (1980). *Annual Report*. London: HMSO.