

# Drugs and prescribing: what the patient thinks

DAVID REES JONES, MD, MRCCGP

Senior Lecturer in General Practice, University of Sheffield

**SUMMARY.** Two hundred and forty-one patients, 173 females and 68 males, completed questionnaires designed to identify their knowledge of drugs and attitudes to doctors' prescribing behaviour. These results were compared with those of 35 ancillary staff, 277 schoolchildren, 55 student nurses, 69 medical students, and 78 general practitioners. Although over 80 per cent of patients thought that heroin was a drug, only 10 per cent thought that penicillin should be so classified. Only two per cent of patients thought it was safe for doctors to prescribe without first seeing the patient, although 80 per cent of general practitioners thought that this was sometimes acceptable.

Seventy per cent of doctors thought that antibiotics, tranquillizers, hypnotics, and anti-depressants were over-prescribed and nearly half the patients appeared to agree with them.

More patients thought that antibiotics were designed to kill viruses than bacteria, over a quarter thought that these preparations were the best form of treatment for a cold, and almost half expected diarrhoea to be treated with an antibiotic.

Doctors need to spend more of their time in simple health education. By doing so they could reduce their future workload and the nation's drug bill.

### Introduction

**D**OCTORS and patients have different attitudes towards drugs. Despite Balint's (1964) assertion that the most important drug in general practice is the doctor himself, drugs remain his principal therapeutic tool and two thirds of consultations end by his giving the patient a prescription (Bain and Haines, 1975).

Chandler and Dugdale (1976) demonstrated widespread ignorance amongst patients about the use of

antibiotics; eight per cent of their patients thought that aspirin was an antibiotic and 13 per cent that antibiotics were merely a strong form of aspirin; 15 per cent said that penicillin was not an antibiotic and a quarter thought that antibiotics should be used routinely for colds.

This study was undertaken to investigate patients' knowledge of drugs and management of simple ailments, and attitudes towards doctors' prescribing behaviour.

### Method

A comprehensive questionnaire was designed and all patients aged over 15 years who attended a city practice (four doctors, 10,000 patients) during one week were invited to complete the form. Pens were provided and the receptionists were available to answer any queries.

Fourteen multiple choice questions were included, covering factual knowledge, matters of opinion, and simple clinical situations. The factual questions were assessed separately, and the percentage of correct answers calculated for each group.

Everyone associated with the surgery who might be asked by patients for advice about their medication was also asked to complete the form. This group included receptionists (seven part-time), district nurses (seven), health visitors (three), midwife (one), the local pharmacists (four) and their staff (11), and totalled 35 persons.

Further opinions were sought from groups of general practitioners (78), medical students (69), student nurses (55), and school children (277).

### Results

During the week of the investigation 532 patients attended. These included children and many elderly people who were unable to complete the form. The questionnaire was completed by a total of 241 patients, 173 females and 68 males. The precise response rate was not recorded, but comparatively few refused. The study was not allowed to interfere with the smooth running of the surgery, and when the receptionists were under pressure their priorities clearly lay elsewhere.

**Table 1.** Knowledge of drugs.

*Which of the following are drugs?*

Group (number):	Percentage who classified substance as a drug						
	Patients (241)	Ancillary staff (35)	Fifth form pupils (126)	Sixth form pupils (151)	Student nurses (55)	Medical students (69)	Doctors (78)
Morphine	56	86	68	78	93	100	100
Aspirin	34	77	33	49	96	100	94
Heroin	85	100	94	97	96	100	100
Sleeping tablets	64	86	55	74	96	100	100
Tranquillizers	58	83	58	79	100	100	100
Penicillin	11	26	15	17	47	90	65

The principal findings are best considered under separate headings.

*What is a drug?*

The results are given in Table 1. While over 80 per cent of patients thought that heroin was a drug, only half so classified morphine, sleeping tablets, and tranquillizers. Only a third thought aspirin was a drug and only 10 per cent thought that the term should include penicillin and laxatives.

School children returned comparable results, while nurses, medical students, and doctors correctly decided that each of the substances was a drug. However, even among these groups, there is some reluctance to label some preparations with a possibly emotive term. Under half the nurses, and only 65 per cent of doctors described penicillin as a drug.

*Opinions about doctors' prescribing habits*

Only two per cent of patients thought that it was safe for doctors to prescribe without first seeing the patient, and none of the nurses or medical students thought this practice acceptable. Over 80 per cent of general practitioners thought that this was sometimes permissible and fewer than 10 per cent thought that it might be dangerous.

Forty per cent of patients said that doctors prescribed drugs too readily; a quarter thought that antibiotics, a third that antidepressants, and over half that sleeping tablets and tranquillizers were too readily prescribed (Table 2).

Over 80 per cent of medical students and about 60 per cent of nurses thought that these preparations were used too often. The majority of ancillary staff thought that doctors prescribed too readily and the doctors themselves clearly considered much of their prescribing to be inappropriate.

*Uses of antibiotics*

While over 80 per cent of patients knew that penicillin was an antibiotic only half so identified tetracycline.

Almost a quarter thought that an antibiotic was the best treatment for a cold and more patients thought that antibiotics were designed to treat virus illness (56 per cent) than bacterial disease (30 per cent)!

One question asked about the treatment of a three-month-old child who had diarrhoea and vomiting. Almost half the patients expected this to be treated with an antibiotic!

*Use of sleeping tablets*

Almost 70 per cent of patients realized that sleeping tablets could be habit forming and almost half that they could be harmful. Fewer than five per cent thought they were perfectly safe. Only a quarter thought that sleeping tablets should be used routinely for treating sleeplessness.

*What patients expect of their doctor*

When asked to imagine the action they would take if they had a three-year-old child with a high temperature, 40 per cent of patients said they would ask the doctor to call while only 10 per cent were prepared to take the child to the surgery. None of the doctors who took part in the survey thought that they should visit; 60 per cent expected to be telephoned for advice, while a third expected the child to be taken to the surgery.

*Levels of factual knowledge*

When the answers to factual questions were assessed the average score achieved by patients was 44 per cent and did not differ between the sexes (females 45 per cent, males 42 per cent). Similar results were returned by fifth-form school children (43 per cent), while sixth-formers did rather better (52 per cent). As might be expected, ancillary staff (74 per cent), student nurses (82 per cent), medical students (96 per cent), and doctors (98 per cent) scored highly.

*Age/sex differences*

No differences were demonstrated between the levels of factual knowledge of men and women. Higher

**Table 2.** Attitudes towards prescribing.

*Do you think the following are prescribed too frequently?*

Group (number):	Percentage who thought the above statement was true						
	Patients (241)	Ancillary staff (35)	Fifth form pupils (126)	Sixth form pupils (151)	Student nurses (55)	Medical students (69)	Doctors (78)
Antibiotics	23	89	15	34	51	86	71
Tranquillizers	51	80	52	70	75	91	77
Antidepressants	37	66	39	63	65	78	65
Sleeping tablets	55	77	70	81	82	93	77
Drugs in general	39	71	50	48	51	87	59

education clearly improved factual knowledge. Women generally showed a greater knowledge of simple medical care while men were apparently more easily alarmed.

The elderly answered factual questions badly but often had a better idea of how to cope with simple medical problems than the young.

### Discussion

Patients and doctors clearly think rather differently about medicines and drugs. Most doctors consider these terms synonymous, but to the patient a medicine is much more likely to mean something which makes him better, while the word drug often has sinister connotations. In general terms, he thinks: "*Medicines* are safe and helpful, *drugs* are dangerous and cause addiction."

These differences are hardly surprising but they need to be kept constantly in mind.

Patients do not approve of the doctor prescribing without his seeing them first and they expect him to visit in circumstances which he does not consider necessary. They have poor factual knowledge about drugs and although they share the doctors' concern about over-prescribing of tranquillizers and hypnotics, many think that antibiotics should be prescribed when doctors do not consider them appropriate. If the patient expects antibiotics for a cold it is often because he has been treated this way before! Doctors quite obviously realize that they are over-prescribing but feel that the patient manipulates them into doing so. A vicious circle is created which results in an ever increasing number of drugs being issued.

To break this circle, the doctor must spend more of his time in educating and explaining rather than prescribing. Only in this way can we hope to help prevent the drug bill rising from its present £400 million annually to even greater proportions.

### References

- Bain, D. J. G. & Haines, A. J. (1975). A year's study of drug prescribing in general practice using computer-assisted records. *Journal of the Royal College of General Practitioners*, **25**, 41-48.
- Balint, M. (1964). *The Doctor, His Patient and the Illness*. 2nd edition. London: Pitman Medical.
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### Addendum

Dr D. Rees Jones is now Head of Clinical Research, Pharmaceutical Division, Reckitt and Colman, Kingston-upon-Hull.

## A manpower policy for primary health care

A National Academy of Sciences study of policy options for the supply of primary health care manpower has produced a comprehensive set of recommendations. The study finds an adequate overall supply of physicians, but a shortage of primary health care practitioners. It recommends maintaining current enrolment levels in medical schools and training programmes for nurse practitioners and physician assistants and increasing the proportion of primary care residents. To enhance the availability of primary care, the report advocates reimbursement for all physicians within a state at the same payment level for the same primary care service, a reduction in payment differentials between primary care services and non-primary care services, and reimbursement for educational and preventive services and for health practitioner services. The report supports a team approach in primary care training and recommends that all medical students obtain clinical experience in a primary care setting and some instruction in epidemiology and behavioural and social sciences.

### Reference

- Scheffler, R. M., Weisfeld, N., Ruby, G. & Estes, E. H. (1978). *New England Journal of Medicine*, **298**, 1058-1062.