# Control of therapy

With the possible exception of diagnosis — a process that until now has monopolized the medical educator's attention — therapeutics is the most exacting of the physician's duties. In some diseases and in optimal circumstances, specific treatment can be conducted with almost mathematical precision. For example, after a careful history and physical examination, and with the results from carefully chosen laboratory tests, the physician can employ such specifics as thyroxine, the cardiac glycosides and the anticoagulants to obtain consistent and predictable results. However, given all the desiderata, the wise physician still proceeds with caution because each treatment episode is a new experiment.

In a modest but significant study reported in the June issue of the *Alberta Medical Bulletin,* Smith and Gilbert conducted a door-to-door survey to determine the contents of the medicine cabinets in 400 homes in Edmonton. They found that householders had accumulated large quantities of prescription and non-prescription drugs. In one area 46 homes had 1210 tablets of diazepam, 18 had 236 tablets of chlordiazepoxide, 68 had 1960 aspirin-caffeine-codeine tablets and 15 had 165 capsules of ampicillin. In all households a large percentage of the prescriptions were outdated, suggesting that the money so invested was wasted or, if the drugs were ingested later, that they could be ineffective or perhaps toxic.

For a generation at least, "medical" drug taking has been acceptable social behaviour — a pervasive social "set" in a society that is encouraged to believe in "a pill for every ill". In the United States of America in 1969, for example, 178 million prescriptions were written for drugs affecting mood and behaviour — 17% of all prescriptions written in that year. This measure of the massive chemical balm applied to psychological and emotional tension omits the large expenditures on alcohol and tobacco, two tranquillizers that are not under prescription.

Swanson, Weddige and Morse[1] have done a detailed study of the abuse of prescription drugs in 225 patients hospitalized at the Mayo Clinic for such abuse. These patients were characterized by a high level of academic-occupational achievement, complicated medical histories, and the abuse of alcohol or multiple drugs. All adult age-groups in both sexes were involved. Abuse had its onset before middle age, had an insidious course of years before recognition, and was concealed behind a façade of medical disorders. More than 60 different medications were abused but sedatives and analgesics were the most common ones. Psychologic dependence, tolerance and craving were seen with all drugs; effects of withdrawal were observed, although they were masked by treatment and the severity differed widely. Seventy (31%) of these patients worked in the health care professions. Generally the prescription drug abuser used combinations of medications, often with alcohol, and rigidly denied his problem and did not cooperate in his treatment. Parenthetically, this study and reports of such bizarre miscarriages of therapeutic intent as addiction to prednisone[2] and to thyroxine[3] illustrate a neglected hazard of prescribing — the unwitting contribution to chronic dependency.

What factors induce the physician to misprescribe or to overprescribe? The pharmaceutical manufacturer creates new drugs, and to remain in business must promote their use by advertising which is usually directed not to the patient but to the physician.

Before the recent expansion of therapeutic aids, the patient expected less; his expectations were not only quantitatively less but also less specific and hence easier to meet. Now, the patient exerts pressure on the physician to provide quick solutions to his illness or his other social or economic problems. He believes that something can always be done for him and, in a sense of vague optimism, that anything is possible. Indeed the physician-patient relationship is dominated by expectations related to the highly potent and often effective drugs available to the physician. In many instances both partners in the relationship rely more on the prescription than on an understanding of the true etiology of the patient's ills. Both may expect instant success, and the disappointment of either may lead only to the replacement of the drug or the addition of another.

Further, the traditional controls over prescription drugs have been weakened by the belief that good health is a right of all. The doctor's office fills with people who somehow must be satisfied. Too busy to give his most effective medicine — himself — the doctor writes another prescription even though for many of his patients this is either ineffective, unnecessary or, in some other respect, "bad medicine". A health system that encourages rapid turnover of patients through a physician's office promotes increased use of the prescription to terminate the visit. How can it be otherwise if both physician and patient are conditioned to believe that the writing of a prescription completes diagnosis, prognosis and treatment?

The traditional solution to prescription drug misuse and abuse requires the doctor to take more time with each patient. If medications are necessary he is expected to give careful instruction and subsequently see each patient frequently to ensure that the dose is correct and that he or she continues to take the medication. If this is a counsel of perfection, what is reasonable in these cost-conscious days?

In the best of circumstances, therapeutics approaches the perfection of science — it is as elegant as it must be satisfying. However, effective therapy is difficult to achieve. Firstly, drug therapy is often difficult to supervise outside hospitals. Over a four-month period Johnson[4] evaluated the treatment of 73 patients suffering from new episodes of depressive illness, which he collected from five selected urban general practices. He found that medication was the principal treatment offered and was often inadequate in dosage or the patient defaulted. Drug defaulting was due partly to failure of supervision and follow-up and partly to the consultation rate being too low. Johnson also noted that in these busy urban practices the traditional doctor-patient relationship had little chance to develop. Although stress was associated with the onset of illness in 81% of the patients, only two were offered psychotherapy and none was offered social help.

Secondly, it is difficult to communicate effectively with many patients. In a book on this subject, Ley and Spelman[5] noted that under ideal conditions outpatients forgot between one third and one half of instruction given them. Therefore, even with better educated doctors who, by some magic, are given time to "create an ambience in which the patient can express his anxieties",[6] the patient, absorbed in his own illness, forgets what he is told or is given to read. Added to this the patient may have purposes of his own which frustrate or negate the best conceived therapeutic plan. Few of Johnson's depressed patients believed that they had gained any help from the doctor-patient relationship (even though they were highly satisfied with their doctors) and apparently did not believe in "his" medicine.

Thirdly, there are real, though often ignored, limits to our knowledge of the efficacy of commonly prescribed drugs. In Australia, in the 12-month period ending December 31, 1970, 1,071,117 prescriptions for "anticholinergic drugs" were dispensed under the Pharmaceutical Benefits Scheme at a cost of $3,497,913. During this period the Scheme spent over $250,000 on one such drug.[7] Goulston noted wryly that physicians prescribed these agents for "irritable bowel" and "functional bowel disorders" and the government paid up even though the clinical efficacy of anticholinergics has never been established. In double-blind controlled studies of 23 drugs used in irritable-bowel syndrome, Goulston found that only three of those available on the Pharmaceutical Benefits Scheme were clinically effective.

Finally, therapeutics is still a relatively new science. Two hundred years ago Voltaire defined medical treatment as the art of pouring drugs of which one knew little into patients about whom one knew less. In 1964 Titmuss noted that it was not until medical therapeutics began to deserve the name of a science in the 1940s that this cynical generalization lost some of its validity. Even so, he said "most Western-trained physicians practising today in all countries of the world completed their training before the flowering of this scientific revolution in therapeutics".[8]

Of all that might be done to improve control of therapy, what deserves priority? Firstly, governments, in addition to their praiseworthy efforts to ensure the quality and effectiveness of prescription drugs, might devise health care systems that, while not removing individual incentives, would not encourage overuse or misuse by increasing income in direct proportion to rate of patient transit through the office. Secondly, even though the physician chooses the drug for him, the patient must accept his share of the responsibility. He has to be educated to more realistic expectations, which means, in part, a curb on the unbridled optimism and sometimes fanciful promises of much pharmaceutic advertising. Lastly, the profession must doff its mantle of invincibility and give the patient a truer account of its services so that he will have less grounds for expecting an instant cure for all his ills.

Much remains to be done to make each doctor safe for each patient and *vice versa*. Modest enterprises such as that of Smith and Gilbert bring that day closer by showing an aspect of the reality which underlies our rationalizations about Canada's health care. The Edmonton survey must be followed by better studies designed to give Canadians a comprehensive survey similar to that which Dunnell and Cartwright provided for Britain in their study "Medicine Takers, Prescribers and Hoarders."[10]

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