An approach to prescribing in Family Practice

by Dr R J Henbest

"The art is getting longer and longer, the brain of the student not bigger and bigger". Hippocratic aphorism, about 400 B.C.

Hippocrates could not have put more aptly the plight of physicians today, in their struggle to prescribe rationally. The past few decades have witnessed an astronomical increase in the number and range of pharmacological agents on the market and medical science continues to undergo an information explosion.

There has been a corresponding increase in expectations as to what modern science can and should do on the part of both physicians and general public. One result of this is that many physicians feel under a great deal of pressure to diagnose, treat, and cure each and every patient.

This pressure is increased not only by patient demands, but also by powerful promotions by the pharmaceutical industry of an increasingly formidable array of drugs and techniques.

But alas, there has been no corresponding increase in either the size of the human brain or its memory capacity. Further, undergraduate and indeed postgraduate medical education is all too often sadly lacking when it comes to teaching an approach to prescribing in family practice.

This leaves young physicians inadequately equipped to prescribe rationally. With time, most of them learn from experience, but because of an insecure foundation, many are influenced mainly by drug company representatives and their advertisements. This often leads to prescribing one new drug after another, usually with too little knowledge of them.

The result is that many physicians never do develop a concise, well-founded formulary that is effective and safe.

Family practice is a most demanding discipline because its practitioners are required to manage a broader range of human health problems than any other discipline.

An important task for physicians engaged in family practice is the development of a therapeutic armamentarium which is practical, which can be scientifically justified, and which is thoroughly integrated with our growing knowledge of whole person health care.[1]

Physicians, training to become family doctors, should be taught an approach to therapeutics that will equip them for developing such an armamentarium.

Physician responsibility and rational therapeutics

"PRIMUM NON NOCERE" — ancient medical dictum of Latin origin meaning, "FIRST DO NO HARM".

The responsibilities of a physician have been stated in many ways, but one of the ways I like best is as follows: to comfort always, to relieve often, to cure sometimes, but to harm never!

We are unlikely to "comfort always" and to "harm never," but let us choose as our guiding principle, to help as much as possible while harming as little as possible. This requires the following three inter-related things: a sense of responsibility and a deep caring for people, the practice of rational therapeutics, and good judgement.

Without a sense of responsibility and a deep caring for others, we soon find ourselves lacking the motivation required to take the time and effort necessary to practice rational therapeutics. In addition, we soon find ourselves thinking in terms of what is expedient for us rather than what is best for the patient. As a result, our judgement is adversely affected and optimum prescribing is less likely.

The practice of rational therapeutics means to provide reasonable, sensible treatment which can be justified scientifically and which is practical. In terms of the guiding principle stated above, rational therapeutics means to prescribe the drug or drugs that will help as much as possible while harming as little as possible. This means using drugs of first choice.

Such a drug is, by definition, either

the most active drug available, or the least toxic alternative among several effective agents, for the condition being treated.[2] Thus, to practice rational therapeutics we must know our agents well enough to choose them as well as to use them!

A good first question before prescribing any agent is, "Do I know enough about this drug to prescribe it? Does the possible benefit I hope to derive from this drug outweigh its potential hazard?"[3]

A second question would be, "Is there a more effective or safer agent available?"

To know our agents this well, two things are necessary. Firstly, a physician needs sound objective information about the many available therapeutic options. Such information can only come from unbiased, well-informed, responsible sources and we must be highly discriminating in our acceptance of sources of information. The names and addresses of five highly recommended sources are given at the end of this article.

Secondly, we must restrict our armamentarium to a manageable number. All physicians limit the number of drugs they use either consciously or unconsciously because of the limitation imposed by the frailty of the human memory.

Let us limit our armamentarium consciously, having carefully chosen each agent on the basis of the best information available. In this way, we can develop a formulary about which we are knowledgeable.

Knowledge is of use only when coupled with good judgement and therefore good judgement is the third requirement necessary if we are to put our guiding principle into practice. If we further define rational therapeutics in terms of that which is integrated with our understanding of people and their illnesses, then, "... the physician must learn to apply his information and knowledge in consideration of the patient's real needs and towards an improvement in the patient's level of independent problem solving."[4]

A good question here is, "For what problem am I prescribing this drug?" If the problem has not been adequately delineated, then it is unlikely that pharmacological treatment will be of help.

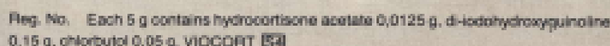
Indeed, the less clearly defined the problem, the greater the risk of iatrogenic disease, if drugs are used. Good judgement involves discerning the real needs of a patient and responding to those, rather than to his expressed wants.

The physician, the pharmaceutical industry, and new drugs

The pharmaceutical industry today is a very powerful and wealthy one. There is tremendous competition for the drug market with huge sums of money at stake. Physicians are a key target for promotion campaigns because they are the ones who prescribe.

The promotions are of such high quality that many physicians have been persuaded that drug companies are in existance mainly for the benefit of the medical profession and the advancement of medical science.

Many physicians, probably most, have been ill-prepared to evaluate claims for new drugs and thus, often feel intimidated when confronted by highly trained, zealous drug representatives who are intent on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Understandably, the physician feels at a disadvantage; he may never even have heard of the drug let alone know anything about it. As a result, he may uncritically accept the information he is given and start to use a drug without adequate evaluation of it.

Many "new" drugs are not new at all, but are only new for that company, having been on the market for years under other brand names.

Many other new drugs are essentially identical to older, more familiar drugs without any new advantages and usually with all the old disadvantages. Other new drugs are really old drugs that are now being marketed for a new indication. Thus many "new" drugs are less new than we think.

However, the evaluation of claims for new products poses a continual challenge to physicians and there is often an abundance of biased and pseudoscientific misinformation available, which highlights the importance of dependence on good reliable sources.

In the absence of such objective data, the safest course to follow is not to use the drug in question. Too many physicians are anxious to use the latest agent on the market, thinking that they may be depriving their patients if they wait until adequate information is known.

However, much more often, patients suffer needlessly due to side-effects of a drug prescribed, often without adequate indication, when there is a safer, proven agent available.

The "natural history" of a new drug has been compared to that of courtship and marriage. At first, there is tremendous enthusiasm and excitement, "love at first sight," as physicians too quickly and unthinkingly fall into a relationship with a drug about which they know too little.

They may be blinded by love, able to see only the good in the drug and not the bad. Sooner or later disenchantment comes, when the drug does not prove to be all that it had promised.

Finally, a compromise is reached, the drug is seen for what it really is, realistic expectations are reached, and the drug put to proper use or not at all as the case may be. If this analogy holds any truth today, we should be wary indeed, for an ever increasing number of marriages now end in divorce.

There are many relationships between physicians and the drugs they use as well as between lovers, which cause only heartbreak and would best not have been entered into in the first place!

The placebo

"One of the most serious difficulties with which a doctor has to contend is the desire of man to take medicine."
(Sir William Osler)

I would suggest that an equally serious difficulty is the desire of doctors to prescribe it!

Placebo is derived from the Latin and means, "I shall please." By definition, it is an inert substance used in treatment or research. Unfortunately, most of the substances used "to please" patients now are not pharmacologically inert and in fact, they range through most of the current pharmacopea.

The desire to please others is deeply rooted, often affecting our judgement and even more often influencing our behaviour. Placebos are frequently used to meet the physician's need to give something rather than to meet the need of the patient.

Indeed, it is much easier to prescribe something than to take the time and effort required to establish what the patient's true needs are as opposed to his wants, especially if his needs are such that medication is not indicated.

Regrettably, placebos are often "... used on a long-term basis ... and, far from solving the problems for which the patient first presented, they tend to obscure and confuse those problems, be they medical, social, or psychological."[5] One particular patient comes to mind.

A middle-aged woman came to me at the hospital outpatient department requesting her "heart tablets" which she had been receiving monthly for the past several years. The prescription record showed, "multivites, one daily," or alternatively, "yeast tablets, twice daily."

The progress record revealed that the patient had originally presented with palpitations and that the physician had thoroughly examined the cardiovascular system including Hb, CXR, and ECG and had found it to be normal. Quite naturally, the patient had interpreted the pills she received as being treatment for the heart.

One might say that at least no physical harm had been done to this woman, (thank goodness that propronolol, digoxin, or quinidine had not been used as the "placebo"), but what of the harm to the person? The physician in this instance had "ruled-out" organic disease, but he had not discovered the reason for the palpitations.

Instead, he had helped to confirm in the patient's mind, (albeit unintentionally), an illness which did not exist by prescribing tablets for her. Further inquiry revealed that the palpitations began soon after her husband and eldest son were killed in a motor vehicle accident leaving her alone with six young children and no means of support. Now, she had the additional worry of "heart trouble."

Even if one chooses what one thinks to be an inert substance pharmacologically, it almost certainly will not be inert emotionally and socially.

For the physician, himself, the most important problem with using placebos is that it introduces dishonesty into his relationship with the patient. If we do not find a condition for which medication is indicated or likely to be of help, we should not mislead either the patient or ourselves into thinking we have done so, by prescribing a drug.

We would do better to honestly discuss our assessment with the patient and then treat in accordance with that assessment.

Have any of us ever known of a patient who died or suffered greatly from the witholding of a placebo? Yet, most of us have seen patients who have suffered from the toxic effects of drugs prescribed without adequate indication.

Generic prescribing

"A physician is a person who pours drugs of which he knows little into a body of which he knows less."
(Voltaire)

The adjective, generic, denotes a unique substance definable in chemical nomenclature as a single chemical entity. Most generic substances are produced by a variety of drug companies and thus have many brand names. Of note, many brand name products contain not just one generic substance but often as many as four or even more.

Thinking and prescribing generically help to make rational

therapeutics possible. Using the generic name has three advantages over using brand names: firstly, it constantly reminds us of the chemical substance we are using; secondly, it ensures that there is only one agent in the drug prescribed; and thirdly, it gives us only one name to remember for each agent in our formulary.

Brand names, on the other hand, do not refer to a specific substance but to a product that may contain any number of agents.

Thus the brand name does not serve to remind us of the substance we are using and we soon forget the composition of brand name products, especially when they contain multiple agents.

In fact, many physicians are unaware of the "extra ingredients" in many products and may even become vague as to the exact nature of the principle ingredients. This sometimes manifests itself when a patient receives a prescription for two different brand names of the same agent to be taken concomitantly!

With generic names, one can develop an adequate but manageable armamentarium about which one can be a great deal more knowledgeable.

The physician as a therapeutic agent

Due to the tremendous advances in technology and medical science, drugs and techniques have come to occupy an increasingly dominant role in the practice of medicine.

Unfortunately this technological "explosion" has not resulted in an equivalent improvement in the quality of our lives.

However, it has led to an increasing dependence on pharmacologic agents on the part of both physician and patient.

As a result, especially the physician has come to rely less on his relationship with the patient as a therapeutic tool.

Michael Balint has described and provided insight into the psychodynamic process of the doctor-patient relationship. He demonstrated that a patient often presents to his family doctor with an offering of physical symptoms which have little or no organic base.[6]

He describes in detail the process of "contracting" for an illness starting with the presentation of symptoms by the patient, followed by history, physical examination, and laboratory investigation by the physician, until a "contract" or agreement is reached and the "condition" is labelled.

The label given significantly influences future doctor and patient behaviour. We prefer to give labels that we can treat and thus, if we are overly reliant on drugs as our means of treatment, we are likely to overuse organic labels.

"Since a great many of the symptoms which patients offer to their physicians are a result of the stresses of living as opposed to simple isolated disease of an organ system, the tendency for physicians to approach the patient from an organic basis leads him frequently to frustration and anxiety, aggravated by his discomfort of uncertainty and his need to establish a diagnosis."[7] Clearly, a physician who relies solely on pharmacological agents will not be able to deal effectively with a sizeable number of patient problems.

Furthermore, every illness has components that cannot be treated by medication alone. No drug can educate a patient; no drug can reassure or comfort a patient. No drug can solve a problem of living and certainly no drug can care for a patient. The only weapon a physician has in his armamentarium that can do these things is himself!

An approach to prescribing

If a physician is to attempt to fulfil his responsibility to his patients in a manner that will "help them the most and harm them the least," then he needs certain guidelines to help him put into practice his desire to prescribe rationally.

The following suggestions are offered:

In the absence of adequate problem definition, be slow to prescribe. Aim for better delineation of the problem.

Choose "drugs of first choice" when possible.

Know your agents well. Know their indications and proper use; be especially aware of their dangers.

In the absence of objective, reliable medical data, do not prescribe the medication concerned.

Think and prescribe generically so that you know exactly what it is that you are prescribing.

Use single agents when possible. Drugs with two agents are not just twice as dangerous as one of them given alone. "Drugs given together may induce reactions that neither will exhibit when given separately."[8]

Develop your own formulary. This should consist of a manageable number of carefully chosen agents for the conditions you commonly treat. Don't use drugs that are not in your formulary until you know enough about them to choose them for your armamentarium.

Become familiar with and use reliable sources. "No man's opinions

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Dr Ron Henbest has been a medical officer in Prof Fehrsen's Department of Family Medicine at Medunsa since October 1980. Some of his attainments include:

- Licentiate of the Medical Council of Canada, June 1979.
- Certificate, the College of Family Physicians of Canada, June 1980.
- Bachelor of Science Degree with Distinction, University of Alberta, May 1974.
- Doctor of Medicine degree with Distinction, University of Alberta, May, 1978.
- Certificate of Training (Successful completion of the two year Family Medicine residency Program) University of Western Ontario, June 1980 (Prof MacWhinney)
- Recipient of the HE Rawlinson Award for outstanding achievement as a medical student, May 1978.

are better than his information," J. Paul Getty.

Think before using placebos. Ask yourself, "Why am I prescribing this drug for this patient?".

Do not use drugs as a substitute for yourself, for the things that no drug, but only you as a person, can offer!.

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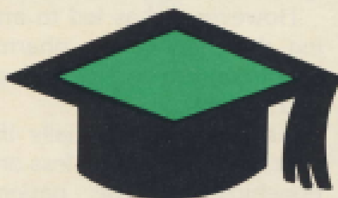

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