

Introduction

Whether in the private or public sectors, medicines constitute a large proportion of the recurrent cost of providing care to patients. Despite this, there is good evidence that medicines are not always well used – that the quality of prescribing could be improved, that dispensing practices could be improved, and that patient compliance is less than optimal. This column – which is planned to appear in each issue of the journal – will try to focus some additional attention on the issue of the quality use of medicines. Many terms have been used to describe this goal – such as “rational drug use”. It is expressed most simply by the World Health Organization (WHO) as “therapeutically sound and cost-effective use of drugs by health professionals and consumers”. The Australians have perhaps the most extensive explanation, and their policy defines quality use of medicines as:

- Judicious use – medicines, whether prescribed, recommended and/or self-selected should be used only when appropriate with non-medicinal alternatives considered as needed;
- Appropriate use – choosing the most appropriate medicines, taking into account factors such as the clinical condition being treated, the potential risks and benefits of treatment, dosage, length of treatment, and cost;
- Safe use – misuse, including overuse and under-use, should be minimised; and
- Efficacious use – the medicines must achieve the goals of therapy by delivering beneficial changes in actual health outcomes”.

However, before launching into a topic, this issue will focus on the framework for considering such clinical problems. The framework will use the concept of evidence-based practice and will try to identify international and local guidelines that may be of help. However, the basic starting point will be the P-drug concept. The WHO publication “Guide to Good Prescribing” was first issued in 1994. Since then it has been used extensively in many countries to train health care workers. The idea is simple – although there are many thousands of medicines on the market, prescribers routinely use a far smaller number. How do they choose this “personal” formulary from the enormous range available? How do they choose “P-drugs”, from which they can select the appropriate “P-treatment” for a specific patient?

The WHO Guide suggests a step-wise process (Box 1):

Box 1: Choosing a P-drug

1. defining the diagnosis carefully – making sure that similar diagnoses are not being considered as a single group when they should be treated differently;
2. specifying the therapeutic objective – and being totally specific about whether this is in fact a problem that is amenable to drug treatment;
3. making an inventory of possible treatments – this is the most difficult step, as some conditions may be affected by a large number of medicines (for example, there are at least 9 different pharmacological classes of medicines available for treating hypertension, each with a number of examples, presented in a range of dosage forms, made by innovator and generic manufacturers);
4. choosing an effective group by using pre-determined criteria, in order: these are (a) efficacy, (b) safety, (c) suitability (such as ease of use and need for additional equipment or tests) and finally (d) cost;
5. choosing an active substance, dosage form and dosing schedule – this last item is often neglected, and should include the expected duration of treatment and monitoring parameters.

Crucially though, like standard treatment guidelines, P-drug lists are only the beginning – only a guide – the real choices have to be made with a specific patient in mind. A similar step-wise process is suggested (Box 2):

Each article in this series will try to apply the P-drug process to a specific problem area. In each of them, there will be extensive reference to material that is accessible to the family practitioner, largely via the World Wide Web. Some of the most important sources include:

- the South African National Standard Treatment Guidelines and Essential Drugs Lists (EDLs) – available in a searchable form at <http://www.sadap.org.za/edl/>
- the Cochrane Library of evidence-based guidelines and assessments – available free to South Africans at <http://www.sahealthinfo.org/Modules/Evidence-based/evidence-based.htm> (registration process necessary)

Box 2: Choosing a P-treatment

1. defining the patient's problem – making sure that the diagnosis is as clear and unambiguous as possible;
2. specifying the therapeutic objective – this is perhaps the step that can avoid the majority of unnecessary prescribing, where medicine is not justified or being used “prophylactically” (the classic example being antibiotics for viral conditions);
3. verifying the suitability of the P-drug – again a series of sub-questions may be asked, (a) is the active substance and dosage form suitable for this patient? (is it effective in this condition; is it safe for this specific patient, who might be taking other medicines; are there special risk factors – pregnancy, lactation, history of drug allergy; is it convenient to take given the patients abilities and lifestyle); (b) is the standard dosage schedule suitable for this patient? (thinking about groups which handle drugs differently – those with renal or hepatic disease, the very young and very old); (c) is the standard duration of treatment suitable for this patient? (again thinking about issues of effectiveness, safety and convenience);
4. writing the prescription – legibly, legally and completely;
5. giving the necessary information, instructions and warnings – ensuring the greatest possibility of patient compliance with or adherence to the instructions, but also ensuring awareness of what to do when adverse effects occur;
6. monitoring, and where appropriate, stopping the treatment – ensuring the appropriate checks on whether the intended therapeutic objectives have been attained.

- the free Medline search facility (PubMed), available at <http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=PubMed>

Returning to the first paper cited – Laing et al suggested 10 ways that medicine use may be improved, for which evidence of effectiveness was available or emerging. Some of these are already being applied in this country – such as the development and dissemination of the national EDLs and the establishment of provincial Pharmacy and Therapeutics Committees. However, they acknowledge that most “rational drug use” programmes worldwide have been directed at primary care targets in the public sector. A more difficult to reach target are the family practitioners in private practice. It is hoped that this series of articles can provide a forum for the “interactive group processes” that have proven effective in other settings. Suggestions for topics to be covered, and responses to this and subsequent articles are therefore encouraged. Collaborative efforts will be needed to address this issue effectively – assuring the quality use of medicines by all.

References:

1. Laing R, Hogerzeil H, Ross-Degnan D. Ten recommendations to improve use of medicines in developing countries. *Health Policy Plan* 2001 Mar; 16(1): 13-20.
2. The WHO approach is summarized on their web site at http://www.who.int/medicines/strategy/rational_use/strud-main.shtml
3. The Australian government web site has extensive documentation on this area – see <http://www.health.gov.au/hfs/hbd/qum/index.htm>
4. De Vries TPGM, Henning RH, Hogerzeil HV, Fresle D. Guide to Good Prescribing (WHO/DAP/94.11). World Health Organization, Geneva, 1994. The entire document is available at http://whqlibdoc.who.int/hq/1994/WHO_DAP_94.11.pdf

Andy Gray

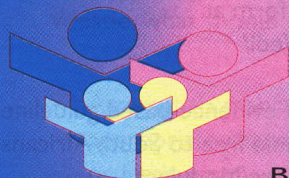
Senior Lecturer

Department of Experimental and Clinical Pharmacology

Nelson R Mandela School of Medicine

Durban

Email: graya1@nu.ac.za



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