



National Prescribing Service Limited

Medical Student National Prescribing Curriculum on CD-ROM – a joint NPS, ASCEPT and WHO initiative

Nicole Cockayne, Jacqueline Vajda and Meg Stuart

Background

The Medical Student National Prescribing Curriculum is a series of case-based online modules, designed to model the processes that hallmark good prescribing. The curriculum was developed by National Prescribing Service Limited (NPS) in collaboration with the Australasian Society for Clinical and Experimental Pharmacologists and Toxicologists (ASCEPT), and was made available to all Australian medical schools in 2001.

In 2002, the Fiji School of Medicine requested access to the curriculum modules. However, access to the internet from Fiji is slow, unpredictable and on occasions non-existent. This is also the current position for many developing countries in our region (and probably throughout the world). It was suggested that having the program available on a CD-ROM would make it generally accessible to both medical and pharmacy students in Fiji, many of whom come from the smaller nations of the South Pacific.

In late 2002 NPS applied to the World Health Organization Essential Drugs and Medicines Policy group, and were successful in obtaining funding to convert the existing online cases to a stand alone format to be offered on CD-ROM. Conversion was completed and the CD-ROM provided to medical schools within the Fiji School of Medicine and the University of Papua New Guinea in 2004. Throughout 2005 the Fiji School of Medicine trialled the suitability of the curriculum with 64 interns. The results reported here represent evaluation data from 53 (83%) of the interns.

Aim and Objectives of the National Prescribing Curriculum Modules

The aim of the Medical Student National Prescribing Curriculum modules is to teach students how to write a prescription, the underlying logic is that of the WHO Guide to Good Prescribing. Users are guided through a series of decision making steps that should precede prescription writing, while gathering information and completing a number of quizzes and checklists to assess their progress.

On completion of the curriculum users should be able to:

- define the therapeutic goal for a patient
- identify drug and non-drug options for treatment
- select the most appropriate drug classes for the treatment of a particular condition
- select one or more (P)referred drugs from these drug classes
- write a prescription
- demonstrate the ability to use evidence based resources
- take a full drug history
- provide patient information
- choose a method for monitoring treatment effects
- communicate effectively with the patient and/or family
- communicate effectively with other health professionals

Users are provided with links to a number of resources such as the *Australian Medicines Handbook*, *Therapeutic Guidelines* and *Australian Prescriber*. In addition, international evidence-based publications which are freely accessible via the internet are also linked, examples include the Cochrane database, *Harrison's Textbook of Medicine* online and the *British Medical Journal* online.

Evaluation methods

A paper-based survey was used to obtain feedback from users on:

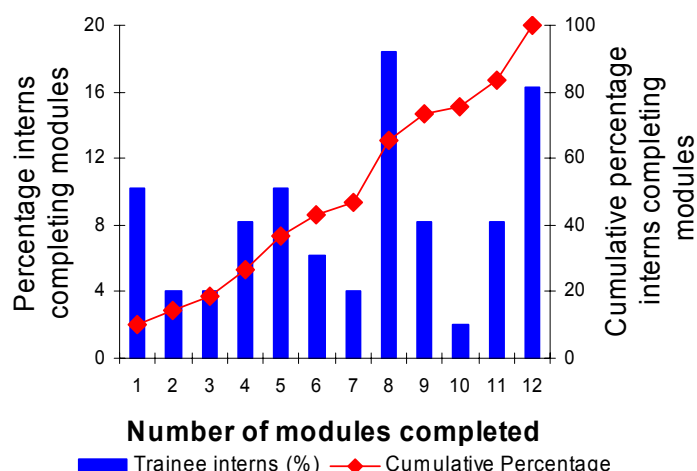
- curriculum design
- practical application of the modules
- appropriateness of the module content
- general use and satisfaction with the curriculum
- whether completion of the modules met the objectives of the curriculum.

Evaluation results

Frequency at which modules were completed

Almost 90% of interns had completed two or more of the twelve modules. Over 50% of interns completed at least 6 modules, and 16% completed all 12 modules. See Figure 1.

Figure 1: Frequency at which modules were completed by interns



Completion of individual modules

Table 1 indicates the percentage of interns completing each module.

Table 1: Percentage of interns completing each module in the curriculum

Module	Percentage of respondents completing this module
Heart failure	88
COPD	86
Chest pain	78
Peptic ulcer	76
Hypertension	74
Pain and vomiting	61
Infection	49
Anticoagulants	47
Seizure	45
Confusion	41
Intern orientation	35
Polypharmacy	29

This choice of modules probably reflects the clinical experience and exposure of interns in Fiji. Indeed, non-communicable diseases have been identified as a National Health priority area for Fiji by the WHO-Western Pacific regional office. Circulatory diseases currently account for one third of all deaths in Fiji.

Usefulness of the modules

The majority of interns (96%) reported that the content of the modules was appropriate to their needs.

“systematic, organised way of approaching prescriptions with evidence and recommendations”

Quote from intern evaluation form

After using the curriculum

- 87% of interns felt better equipped to prescribe
- 91% stated they understood the process of choosing P(referred) drugs
- 77% felt the modules were of great assistance in developing their Personal Formulary
- 81% would recommend that the modules be integrated into the medical degree program
- 70% said they did not find the links within the modules helpful.

Suggestions for improvements

Two areas were identified for possible improvement:

- improved presentation to make the modules more user friendly
- increased relevance of the content to the Fiji setting

“use of colours, sounds and pictures of drugs please”

Quote from intern evaluation form

“include other conditions ... especially those that are common in the Pacific”

Quote from intern evaluation form

“in the Pacific, a lot of the mentioned drugs are not available”

Quote from intern evaluation form

Conclusion

The National Prescribing Curriculum on CD-ROM was a valuable resource for interns in Fiji. The high satisfaction rating for the prescribing modules, in spite of some difficulties with links and perceived irrelevance of some clinical cases, reinforces the value of providing trainees with a comprehensive model for good prescribing.

NPS acknowledges the assistance of Dr Mai Ling Perman and Professor Robert Moulds of the Fiji School of Medicine, for their assistance in collecting this data.

An independent, non-profit organisation for Quality Use of Medicines, funded by the Australian Government Department of Health and Ageing.