

DEVELOPMENT AND EVALUATION OF A COMPUTERISED SYSTEM FOR THE PROVISION AND DOCUMENTATION OF PHARMACISTS' COGNITIVE SERVICES

EXECUTIVE SUMMARY

Drug related problems cost Australia approximately \$400 million and 80 000 hospital admissions per annum. Around half of these are considered avoidable. Community pharmacists play a unique role at the centre of patient medication management and are equipped with the skills to address many of these medication issues through intervention and cognitive service and the documentation of these activities.

Interventions and cognitive services are performed on a daily basis within the majority of Australian community pharmacies. At present, however, their documentation is virtually non-existent, yet the recognition of the pharmacist in improving health outcomes, providing quality care to patients and seeking remuneration for these services can only be realised with complete documentation.

The objective of the project was to design a computerised system for the recording of medication incidents in community pharmacies. The system was designed to be easy to use, with a minimum number of keystrokes, to be minimally restrictive on time and interface with dispensing software.

This system was devised after an extensive literature evaluation and it underwent several pilot phases and intensive testing by consulting pharmacists with many iterative modifications being made prior to the trial period. For the trial period, the system was designed for incorporation into the Rex dispensing system (Phoenix Computers). Pharmacists were trained in the use of the system via personal tuition from project coordinators, a training manual and attendance at one of three information evenings that were held in central locations around the state. Participants were requested to record details of all interventions and cognitive services they performed during the trial period and participants were paid a professional fee of \$2 for each intervention recorded. Details of incidents recorded include the drug involved, problem identified and its potential severity, and the steps that were taken by the pharmacist to resolve the problem, including time taken and details of contact with the

DEVELOPMENT AND EVALUATION OF A COMPUTERISED SYSTEM FOR THE PROVISION AND DOCUMENTATION OF PHARMACISTS' COGNITIVE SERVICES

prescriber (and whether the recommendation was accepted). De-identified data files were downloaded locally via floppy disk. As an extension of this project a web-based central repository is being developed to allow the downloading of the data securely via the Internet. Participating pharmacists were asked to complete a questionnaire at the conclusion of the project outlining their opinion of the usability and importance of the system. An expert panel of four clinical pharmacists evaluated a random selection of 110 recorded interventions.

19 pharmacies were invited to participate in the project (the only prerequisite for inclusion was current use of the Rex dispensing system. A total of 463 interventions were recorded over the six-month trial period this equated to 0.09% intervention rate (i.e. An intervention was recorded for approximately 1 in 1000 prescriptions) although the rates of intervention varied markedly between pharmacies. Of the interventions recorded, 95% were accepted by patient or prescriber.

Feedback from participating pharmacists was generally very positive and results showed reasonably good agreement between the recording pharmacists' and expert panel's interpretation of the clinical significance of the interventions.

Systems such as this are critical because they enable the profession to clearly demonstrate the importance of community pharmacist's interventions and their impact in reducing mortality, morbidity and health care costs in Australia. The system also allows for a permanent record of actions to be kept for continuity of care, peer audit and legal purposes. Adequate training is essential to ensure pharmacists have the knowledge and skills to perform useful and timely interventions and the importance of documentation.