UTAS focuses on ICT

Greetings everyone! You have probably noticed that the title of the column has changed this month – why you might ask?

Over the past few years there has been a large amount of exciting and innovative research completed in the area of pharmacy practice throughout the various Australian University Pharmacy Schools. Well, of course they are – that's what universities do isn't it?

However, it has become apparent that the aims, impact and outcomes of this research is not necessarily as well known in the wider pharmacy community as it is at the pharmacy schools. So, every alternate month I will provide a taste of some of the practice research going on around the country. Never fear though, the *Old drug – new indication* articles will continue as well!

'This discharge scenario is a well-recognised high-risk period for the occurrence of medication problems.'

The first cab off the rank is some great work coming out of The Apple Isle. Under the direction of Professor Gregory Peterson, the Unit for Medication Outcomes Research and Education (UMORE), established within the School of Pharmacy at the University of Tasmania, is undertaking some vibrant and expanding research.
The unit intends to become a premier source of information, education and collaborative research in the assessment and improvement of medication outcomes.

UMORE has a strong focus on the application and evaluation of information and communications technology (ICT) solutions to improve the safety and efficacy of health care delivery, including the use of medications. The group's research in this area is being performed in a unique collaboration between university-based health and information system specialists, State Departments of Health and Economic Development, health professionals and the local and national ICT industry.

UMORE is working on a range of projects incorporating the use of ICT to improve the safety and efficacy of medication usage.

Some of the projects being worked on include:

1) An innovative e-learning initiative in medication safety for health care professionals (doctors, pharmacists and nurses) and students (www.medsafety.net).
2) A national electronic database for medication-related incidents and pharmacists' clinical activities in community pharmacy (www.promise.id.au) – the Pharmacy Recording of Medication Incidents and Services electronic documentation system (PROMISe). The system integrates seamlessly with pharmacy dispensing software (currently REX and WiniFRED), extracting relevant data from the dispensing database and guiding the pharmacist through a short series of screens which classify both the event and record enough case information to later extract its health economic value. The combined data is de-identified and encrypted before being sent to a secure, central database. Pooled data can then be used to explore the frequency of intervention events and their nature.

   The aim is to establish a sustainable, electronic system for the ongoing collection of information from community pharmacies identifying incidents related to medication safety and subsequent clinical activities by community pharmacists around Australia. This will help to accurately value the cognitive services which are currently provided regularly by all pharmacists on an arguably unpaid basis, thus reinforcing the position of community pharmacists as important members of the health care system. When the project is completed, Australia will be the only country in the world with a mechanism for collecting nation-wide information relating to problems identified in community pharmacies.
3) Another project (www.medesupport.com.au) is developing and evaluating an innovative medication support program for patients being discharged from hospital care back to the community. This discharge scenario is a well-recognised high-risk period for the occurrence of medication problems. The program will utilise ICT solutions and include an electronic communication pathway for medication profiles between community and hospital pharmacies, and GPs. In essence, the goal is to improve communication flow between hospitals and the community setting to reduce adverse medication outcomes following hospital admission or discharge. The project is also evaluating a streamlined HMR model whereby high-risk patients are reviewed within seven days of discharge from hospital.

   The latter two projects are funded by the Commonwealth Department of Health and Ageing, as part of the Third Community Pharmacy Agreement (the Pharmacy Guild manages the Third Community Pharmacy Agreement Research and Development Grants Program). The projects are critical in providing evidence for the implementation and remuneration of new professional services for community pharmacists.

   UMORE is involved in several other projects directed at improving medication safety through the application of ICT solutions. The focus is on implementing processes utilising ICT wherever possible, that are not reliant on significant personnel or maintenance to support and can be easily introduced in community pharmacy practice.

   UMORE's research is definitely helping to take pharmacy practice into the future.

Dr Lisa Nissen is a Lecturer and Researcher at the University of Queensland School of Pharmacy.