

## EDITORIAL

# Clinical pharmacy in Sri Lanka: translating training into practice

Sri Lanka has a strong national health system, which has achieved developed world health outcomes. It has also had a sustained commitment to drug policy ranging from its innovative role in essential drug lists<sup>1</sup> to the most recent iteration of national drug policy, which focuses upon quality use of medicines.<sup>2</sup>

Pharmacy training was introduced in the early 1950s, evolving into a diploma of pharmacy. The role of pharmacists was predominantly limited to drug procurement, distribution, dispensing and inventory. In response to the National Drug Policy that promoted the development and utilisation of local expertise in clinical pharmacology and clinical pharmacy, there has been a dramatic and rapid development in the training of pharmacists with the introduction of an undergraduate bachelor of pharmacy degrees at six universities.

There has been a number of challenges, including the lack of clinical pharmacy mentors, tutors or role models to provide undergraduate training and clinical leadership. Until 2009, the BPharm programs were being taught by academics with pharmacy, medical and science backgrounds, including clinical pharmacologists, who had little experience as clinical pharmacists. Sri Lankan academics were concerned about the gaps in clinical pharmacy expertise and so approached Australian clinical pharmacists to collaborate.

In 2009, two of us (IC and JC) were invited to teach at the University of Peradeniya. Over an 8-week period, we developed and piloted an undergraduate clinical pharmacy course with support from colleagues at the South Asian Clinical Toxicological Research Collaboration (SACTRC). This opportunistic request led to the growth of a collaboration between colleagues in Sri Lanka and Australia, informally known as the Collaboration of Australians and Sri Lankans for Pharmacy Education and Research (CASPER).

The following year, an opportunity to build sustainability arose when a Sri Lankan team obtained a World Health Organization (WHO) grant to fund a combined program teaching BPharm students at the University of Sri Jayewardenepura (USJ) and training clinical pharmacy educators. The Australian team and the Sri Lankan staff from USJ delivered and evaluated a clinical pharmacy undergraduate course to BPharm students at USJ. In addition, a 'Train-the-trainer' program was undertaken to which all Sri Lankan academics delivering

clinical pharmacy programs were invited. Feedback from participants confirmed that pharmacists and pharmacy educators can collaborate to improve the quality of clinical pharmacy teaching in developing countries such as Sri Lanka.<sup>3</sup>

The next challenge was to create a clinical pharmacy role in hospitals and provide evidence of the value of expanded pharmacy practice in order to establish a capable clinical pharmacy workforce.

To address this, we were supported by SACTRC and medical colleagues in Sri Lanka to undertake local research gathering evidence while also providing Sri Lankan graduates the opportunity to become clinical pharmacists with mentoring from the Australian team. This phase commenced in 2012 with a Sri Lankan pharmacist being coached to conduct an observation study of patients in the professorial medical unit at Ragama Hospital. Training consisted of face-to-face visits and fortnightly teleconferences. The study 'Measuring the gap in quality use of medicines in a Sri Lankan Hospital: an observational prospective cohort study' included 478 patients and identified more than 1250 opportunities for medicine optimisation.<sup>4</sup> Following this, an intervention study was conducted. The intervention study was a controlled clinical trial: 'Impact of a ward based clinical pharmacist on improving quality use of medicines in patients with non-communicable diseases' (SLCTR/2013/029); 400 patients were recruited for each arm. Results of the intervention study describe the impact on quality use of medicines and the acceptance and attitudes of medical doctors and nurses regarding integration of clinical pharmacy services into the current healthcare system in Sri Lanka. The results of this research are important as they provide an evidence base to inform policy change and alter clinical practice in Sri Lanka and other countries developing clinical pharmacy.<sup>4-6</sup> Another research project funded by the National Research Council of Sri Lanka is underway with a clinical pharmacist in diabetic clinics at both an urban and a rural government hospital (SLCTR/2014/034).

The research work has provided an opportunity for four BPharm graduates to gain experience as clinical pharmacists, which they are now sharing with their future colleagues. Two have been employed as lecturers and two have registered to undertake an MPhil with a local university, developing research skills along with

clinical pharmacy skills and experience. This research is providing evidence for the value a clinical pharmacist can add to Sri Lankan health care. The Australian team has extended their skills with the opportunity to teach, develop research projects, supervise researchers and both lead and collaborate in writing conference presentations and journal articles. At the same time, each of us has had the opportunity to travel, make new friends and enjoy the excitement of making a difference.

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**Ian Coombes**, PhD, MSc, BPharm  
Department of Pharmacy, Royal Brisbane and  
Women's Hospital, Brisbane, Australia  
School of Pharmacy, University of Queensland,  
Brisbane, Australia  
E-mail: [ian\\_coombes@health.qld.gov.au](mailto:ian_coombes@health.qld.gov.au)

**Judith Coombes**, MSc, Post Grad Cert Educ, BPharm  
School of Pharmacy, University of Queensland,  
Brisbane, Australia

**Andrew Dawson**, MBBS, FRACP, FRCP, FCCP  
South Asian Clinical Toxicology Research Collaboration,  
University of Peradeniya, Peradeniya, Sri Lanka  
Sydney Medical School, University of Sydney,  
Sydney, Australia

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