

## **Background**

The lack of graduate pharmacists in Sri Lanka has led to sub-optimal medicines management in hospital and community pharmacies. Consequently, the University of Sri Jayawardenepura (USJ) in Colombo commenced their first 4-year BPharm program in 2006. Due to lack of local expertise in hospital pharmacy, USJ requested assistance with teaching the clinical hospital pharmacy program for its first batch of final year students in 2010. The teaching team from Australia consisted of five experienced pharmacists, three of whom were funded by the SSAVE Grant (Catherine Lynch, Nimali Peters, Elaine Lum) with the remaining two being funded by the World Health Organisation (Ian Coombes, Judith Coombes). Ian and Judith had both piloted a similar teaching program for third-year Pharmacy students in Peradeniya University, Kandy in 2009.

## **Aims**

Our aims were to (1) plan, write and teach an integrated interactive course in clinical hospital pharmacy (2) assess students, (3) evaluate the course and (4) run a "Train-the-Trainer" program for local lecturers to ensure continuity of the program, and to build local capacity.

## **Method**

Curriculum design commenced in January 2010 and was completed in early June 2010. Our team volunteered personal time to build an integrated course to complement the current USJ curriculum. The following tasks were planned and prepared prior to the start of teaching at USJ

- Teaching timetable including lectures, tutorials and ward-based teaching
- Teaching material for lectures and tutorials
- Student OSCEs (both formative and summative) and written exams
- Course evaluation (students were asked to score each lecturer at baseline and after the final lecture)
- Focus group questions (a focus group was conducted with students and selected local lecturers)
- A series of "Train-the-Trainer" workshops

The arrival of the team in Colombo was staggered, with Cathy, Nimali and Judith teaching the first three weeks, while Elaine and Ian taught the remaining weeks. Cathy, Nimali and Ian conducted the summative exams in the final week. The teaching block took place over five weeks from 7 June to 14 July 2010. All members of the team volunteered personal time (annual leave) for this teaching tour.

## **What we brought to the teaching team**

Cathy, Nimali and Elaine brought the following skills to the teaching team:

**Hospital Pharmacy experience:** Over forty years of combined hospital pharmacy experience in various clinical specialties, quality use of medicines, multidisciplinary teamwork, and pharmacy management.

**Teaching experience:** Current appointments at The University of Queensland (UQ) -undergraduate

teaching/research. As hospital pharmacists, we have successfully mentored Pharmacy undergraduate students, interns and junior pharmacists using adult-learning principles. All members of the team have also supervised local and international post graduate students.

**Experience living and working local in different cultures:** Previous residencies in Asia/developing countries. Elaine has worked in Malaysia and Singapore, and Catherine has worked in Papua New Guinea and Republic of South Africa.

**Postgraduate Qualifications:** Elaine gained a Masters in Clinical Pharmacy (UQ). Nimali has a Postgraduate Diploma in Clinical Pharmacy (UQ), and is currently completing MCLinPharm (UQ). Catherine completed a "Train-the-Trainer" program (Medunsa University, South Africa).

**Language expertise:** Nimali is a native Sinhala speaker.

### **What we provided to the students**

A total of 29 lectures, 10 tutorials and 8 ward-based teaching sessions were provided by the teaching team. Lecture sessions, tutorials and ward-based teaching sessions were each of three hours' duration.

Ward-based teaching was conducted in Kalubowila Hospital under the auspices of the Pharmacologists there. Each group of three students was allocated a patient to interview (after patients/ carers had agreed to participate). The objectives of the ward visits included the following:

- Student to become familiar with the team approach to patient care and the role of various members of the team including pharmacists.
- Students to understand the use of patient medication charts and the role of the pharmacist in monitoring drug therapy.
- Students to understand the organisation of the patient notes and see how these can assist the pharmacist in monitoring drug therapy.
- Students to experience meeting a patient on a hospital ward and discussing their medications with them.
- Students to be able to produce a pharmaceutical care plan for a specific patient.

Students were then expected to present their findings in a group tutorial setting, to discuss any proposed actions and to answer any questions posed by tutors and their peers.

Tutors provided timely feedback on their presentations.

Selected members of the teaching team also participated in two professorial ward rounds with Pharmacologists at Kalubowila Hospital.

### **What we provided to the local lecturers**

A total of five "Train-the-Trainer" workshops were delivered to local lecturers and interested industry parties. Participants from all Sri Lankan universities offering a Pharmacy degree

(University of Sri Jayawardenepura, University of Peredinya, University of Ruyuna. Open University, and University of Colombo) were invited to attend. The workshops looked at teaching and learning styles, lecture and tutorial development and design, using literature searching to update course materials, and identified and validated competencies to be used in the OSCEs.

### **Outcomes and Benefits**

#### **1. Student perspectives**

The feedback data were collected using feedback questionnaires and focus groups. Overall, the students were very appreciative of the teaching sessions. All course evaluations trended positively at the final lecture. Some of the comments from the students included:

“Lecture was interesting. It was really a pleasure being with you all & learn by you all”

“the lecture was very interesting, impressive and very useful. I liked and enjoyed it. Thank you very much dear sir”

“So interesting. Hope you will teach our lecturers to deliver a lecture such way”

The most frequent comments for areas of improvement were issues with pace and clarity in understanding the lectures. Respondents indicated that they experienced difficulties in understanding lectures due to the lecturers’ unclear and quick speech.

#### **2. Assessment**

Students experienced Objective Structured Clinical Exams (OSCEs) for the first time, where they had to demonstrate application of clinical knowledge in a mock scenario in role play format. Two mock OSCE stations were conducted the week prior to summative OSCEs consisting of ten stations.

#### **3. Growing local capacity and capability**

The local lecturers observed and assisted in several lectures, tutorial and ward-based sessions, to observe different teaching styles. They also participated in the “Train-the-Trainer” workshops to further consolidate their knowledge and understanding. In addition, teaching materials and assessment questions including OSCEs were handed over to the lead local lecturer for use in future years.

#### **4. To the team**

From this experience, the teaching team gained the following benefits:

- Honing skills in cultural appropriateness when teaching
- Improving teaching skills using student feedback
- An opportunity to provide much needed service
- Making a contribution to the profession of pharmacy



Elaine with part of the class before Mock OSCEs

### **Recommendation**

Our recommendation to SSAVE is to continue to offer these community grants to support well defined work which is beneficial to developing countries.

### **Conclusion**

The SSAVE Grant enabled a small team of clinical pharmacists from Brisbane, Australia to successfully deliver an integrated interactive course in clinical hospital pharmacy to the first cohort of pharmacy graduates in University of Sri Jayawardenepura, Colombo and to build local capacity by training local lecturers.

We sincerely thank Symbion and Sanofi-Aventis for supporting our work by awarding us the SSAVE Grant.