Pharmacology At The Manipal College Of Medical Sciences, Pokhara, Nepal: New Roles And New Challenges
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Citation

Abstract
The Manipal College of Medical Sciences, Pokhara, Nepal admits students from Nepal, India and Sri Lanka for the undergraduate medical course. The department of Pharmacology emphasizes the rational use of medicines. Selection of personal drugs (P drugs) for common disease conditions is an important practical exercise carried out. The students are taught to critically analyze drug promotional material and to assess the quality of drug information. Communicating drug and non-drug information to patients is an important transferable skill. The department runs a drug information center and a pharmacovigilance cell in the teaching hospital and is actively involved in the hospital drug and therapeutics committee.

The department publishes a quarterly drug information bulletin and is actively involved in research. The information gathered has been used to design and plan educational and managerial interventions to improve drug use. The department actively encourages student research.

REVIEW
The Manipal College of Medical Sciences, Pokhara, Nepal the first medical college in the private sector in Nepal was started in 1994. The college admits students to the undergraduate medical course (MBBS) in two batches of 75 students each, in the months of February and August. The students mainly come from Nepal, India and Sri Lanka. The college is affiliated to the Kathmandu University for the MBBS course.

Pharmacology is taught during the first four semesters along with the other basic science subjects (Anatomy, Physiology, Biochemistry, Pathology, Microbiology and Community Medicine). The department of Pharmacology follows a mixture of didactic lectures and problem-stimulated learning sessions for teaching the subject. During the practical sessions, learning is problem-stimulated, activity-based and carried out in small groups. The student attitude towards the subject is favorable.

The department emphasizes the rational use of medicines. The students are taught to select and use essential medicines rationally. The concept of personal drugs (P drugs) for common diseases is emphasized. Students learn to select P drugs for different conditions and to verify the suitability of their P drug for a particular patient.

The students had and continue to carry out research projects linked to the rational use of medicines. They are taught to critically analyze drug advertisements and other promotional material against the WHO ethical criteria for medicinal drug promotion. Recently we have started role-plays to teach students about ethical drug promotion and optimizing time spent with medical representatives.

The department runs a Drug information centre (DIC) in the teaching hospital which was established with the support of the United States Pharmacopeia. The center has been in operation for more than two years and has answered around 600 queries. The pharmacovigilance cell has been recognized as a regional pharmacovigilance center and at present concentrates on spontaneous ADR reporting. The department conducts a postgraduate course (MSc) in Medical Pharmacology and the post graduates (PGs) are actively involved in the running of the center.

The students visit the DIC and the pharmacovigilance cell in the teaching hospital. In the DIC they learn about various sources of drug information. They are taught how to assess the quality of information obtained both from paper and internet sources. The students learn about the various
adverse drug reaction (ADR) reporting schemes. They learn about the procedure to be followed while reporting an ADR. The students design a spontaneous ADR reporting form as a practical exercise in pharmacovigilance.5

The students are taught to search for and critically evaluate information about medicines to prepare them for future practice. Communicating drug and non-drug information to patients has been considered as a key ‘transferable skill’ in Pharmacology.6 The students conduct role plays to practice communicating information about common diseases. We use simulated patients for the role plays. Recently PG students in pharmacology have played the role of simulated patients.7 The students are assessed in communication skills using a standardized check list.

The department is actively involved in the Drug and therapeutics committee (DTC) of the hospital. The DTC has been playing an important role in ensuring drug safety in the hospital.8 The DTC had decided to withdraw phenylpropanolamine for use from the hospital, denied approval for nimesulide and withdrew the irrational antibiotic combination of ampicillin and cloxacillin.9 The DTC has put in place a scheme for the inclusion of a new drug in the hospital pharmacy. Unbiased, objective information about the medicine is provided by the DIC.

The DIC publishes a quarterly Drug information bulletin. The bulletin aims at promoting the more rational use of medicines in Nepal and abroad. Ten issues of the bulletin have been published so far. The bulletin is available on the web at http://www.dinon.org/mcoms/bulletins.htm. Recently a two page pharmacovigilance bulletin called Vigil has been published along with the bulletin.

The department is actively engaged in research in the areas of pharmacoepidemiology, pharmacoeconomics, and methods to improve the teaching of rational use of medicines. The DIC has provided literature support to other departments to carry out research and during the writing of research papers. The department has encouraged medical students to carry out research. A young and dynamic group of students is actively engaged in research under our guidance and supervision. They have published their findings in national and international journals. The postgraduates have also published articles in various journals. The faculty members have presented their findings at various national and international fora. They have published original research articles and review articles on drugs. The results of the drug utilization and prescription audit studies have been reported to the DTC so that educational and managerial interventions to improve drug use can be planned and implemented.

The department has shown that with a committed team, it is possible to achieve results in a resource-limited setting even in times of turmoil. Future plans include strengthening the teaching of rational use of medicines, conducting courses on rational use of medicines for interns and medical officers and implementing a community based ADR monitoring program.

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References
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