ncouraging academics and research in the department of Pharmacology in a new medical school in the Kathmandu valley

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Citation

Abstract
KIST Medical College is a new medical school in Nepal. The department of Clinical Pharmacology and Therapeutics has the vision to create healthcare professionals who can use essential medicines rationally. Pharmacology is an important discipline for a medical student. At the Manipal College of Medical Sciences, Pokhara the department emphasizes teaching students to use essential medicines rationally. The management of KIST Medical College was interested in promoting the rational use of medicines in the teaching hospital. A Medicine and Therapeutics Committee was formed and pharmaceutical care activities and the hospital pharmacy are run under the committee’s supervision. Weekly departmental presentations are held and the department conducts fortnightly academic detailing sessions for the clinicians. Microteaching sessions both for didactic lectures and for problem-stimulated learning sessions have been conducted. The faculty members have published articles related to rational use of medicines, medicine care services and innovative learning methods in various journals.

INTRODUCTION
KIST Medical College is a new medical school in Lalitpur district of the Kathmandu valley, Nepal. The college is affiliated to the Tribhuvan University and is committed to excellence in holistic healthcare, education and research. The teaching hospital started functioning from January 2008 and the department of Clinical Pharmacology and Therapeutics was formally established in March 2008. At present the college admits students for the undergraduate medical (MBBS) course and the first batch was admitted in November 2008. The college also plans to start undergraduate courses in dentistry and pharmacy.

VISION AND MISSION OF THE DEPARTMENT:
The department has the vision to create healthcare professionals who can use essential medicines rationally and to inculcate in them the capacity to keep up to date with developments in medicines and therapeutics. The mission is to be among the top Clinical Pharmacology departments in Nepal by the year 2015 and to be an internationally recognized centre for drug utilization, pharmacovigilance and pharmacology education studies.

PHARMACOLOGY IN MEDICAL SCHOOLS:
Professor K Weerasuriya from the Department of Essential Drugs and Medicines Policy, World Health Organization South East Regional Office (WHO SEARO) had stated that the most important department for medicines is the Pharmacology/Clinical Pharmacology department. Professor PK Rangachari of McMaster University, Canada states that ‘For the aspiring physician and even more for his patients pharmacology is a crucial discipline’. The student should be able to appreciate pharmacological principles especially those which are important for therapy during the undergraduate years of training. The department working in close collaboration with clinical departments should train students to use essential medicines rationally. At the Manipal College of Medical Sciences (MCOMS), Pokhara, Nepal 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 the quality of drug information conveyed by various sources. Communicating drug and non-drug information to patients is emphasized. 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.
STARTING A NEW DEPARTMENT:
Keeping in mind the success of the department at MCOMS I wanted to try to emulate certain of the above mentioned activities at KIST Medical College (KISTMC) and also to try to further develop them and go beyond what has been achieved at MCOMS. Three postgraduate pharmacists (MPPharm Pharmacology & MPPharm Pharmacy Practice) joined the department in March while one had already joined in February. The management was keenly interested in developing a ‘medical college with a difference’. One of the first areas of emphasis of the hospital management was promoting the more rational use of medicines. The management wanted to start a Medicine and Therapeutics Committee (MTC) to encourage rational use of medicines in the teaching hospital. The MTC was started in February 2009 and is active in preparing the hospital medicines list and restricting the number of brands available in the hospital pharmacy. A number of other initiatives have also been taken by the MTC.

The department soon realized that to ensure rational use of medicines (RUM) it has to take the lead in running the hospital pharmacy. Running of the pharmacy by a private party with a predominant profit motive may not be conducive to RUM. Restricting brands, regulating pharmaceutical promotion, ensuring availability of good quality medicines were the objectives.

MEDICINE CARE ACTIVITIES:
The Drug Information Center (DIC) at MCOMS has been successful in providing objective, unbiased information about drugs and therapeutics to healthcare personnel in the teaching hospital and outside. The DIC supports the activities of the hospital drug and therapeutics committee (DTC) and runs a pharmacovigilance and medication counseling center. The resources of the DIC are also used for teaching and research. Keeping all this in mind we were interested in starting a DIC at KISTMC. However there were many hurdles.

The DIC at MCOMS was started with the support of the United States Pharmacopeia (USP). Also MCOMS has a large hospital building and space was not a problem. By 2008, when we were establishing the department USP had discontinued its programme in Nepal and space was at a premium in the new teaching hospital of KISTMC. So a Medicine Information Center (MIC) has not yet been formally established. Medicine Information Service (MIS) has been started as a pilot project. A Medication Counseling Center (MCC) was established and pharmacovigilance activities were also started.

WEEKLY DEPARTMENTAL PRESENTATIONS:
The department has weekly presentations on various topics of interest. The presentations cover new drugs, problem drugs, news from the world of medicines, presentation of review articles, critical analysis of a journal article and discussion on various aspects of the small group learning process. Departmental faculties who are not on duty in the medication counseling center (MCC) attend the presentations. These presentations are crucial in creating an academic environment in the department. Various problems, future plans, research papers and areas of future research are also discussed during the departmental meeting before the presentation. A review article has resulted from one of the presentations on the new uses of thalidomide. Among the various topics covered were new drugs like olmesartan, abatacept and montelukast; problem drugs like ampicillin and cloxacillin, phenytoin among others. The use of vaccines during pregnancy was recently discussed.

MICROTEACHING SESSIONS:
To improve the teaching skills of faculty members microteaching sessions are conducted on how to teach students during didactic lectures. Sessions on facilitation skills during the problem-stimulated learning (PSL) sessions are also conducted. Organization of the presentation, quality of audiovisual aids, ability to explain concepts, time management, clarification of learning objectives, summarizing the topic, body language, choice of topic and style of presentation were the various parameters assessed. For the PSL sessions, ability to clarify learning objectives, preparation of the problems, ability to manage and facilitate small group dynamics, ability to create and maintain interest, behavior during the sessions were among the various points monitored.

These sessions have helped the faculties to become better teachers and facilitators. The sessions also served to introduce faculties to a lesson plan and its importance of smooth, effective conduct of the sessions.

ACADEMIC DETAILING SESSIONS:
To promote the more rational use of medicines, the department decided to start academic detailing services for the clinicians. The detailing sessions are held in a large group format of around 25 doctors and are conducted every
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alternate Tuesday afternoon. New drugs, problem drugs, commonly used drugs, important news from the world of medicines and other areas are covered. Olmesartan, topiramate, paracetamol, oral rehydration salts (ORS), ampicillin and cloxacinil fixed dose combination (FDC), coamoxiclav were among the many drugs covered. These sessions have helped department members to interact with clinicians and have honed their explanation and presentation skills. The clinicians have developed a more positive impression of the department and we have received drug information queries during the discussion. The sessions also serve as a platform to bring together pharmacologists, pharmacists, clinicians and other basic science faculties.

RESEARCH:

Research is the life blood of any academic department. The department at KISTMC is committed to research. The department concentrates on research in the areas of rational use of medicines, medicine (pharmaceutical) care services, improved methods of teaching and learning among others. The department also decided to concentrate on disseminating information about medicines through review articles. The department collaborates with the well established department of Pharmacology at MCOMS.

Since equipment and facilities for quality basic research was not available we decided not to focus on that area. Research which was novel and likely to be of use and interest to the college and the community were given priority. After the MTC was well established and effective, the initiatives and our early experiences were shared through an article in the journal Pharmacy World and Science. The departmental members decided to review and share information about two booklets published by the Regional Pharmacovigilance Center, Pokhara. These reviews were published in the Journal of Clinical and Diagnostic Research (www.jcdr.net) which is freely available online.

The authors have written an experience sharing article on starting a pharmacovigilance program in a new medical school. This article has been accepted for publication in the Southern Medical Review, a new medical journal from New Zealand. The authors have also written about promoting the more rational use of medicines in KISTMC in a new Malaysian journal. A strategy which we adopted was of initiating and strengthening medicine care services in the teaching hospital which would serve as a base for future research. Various faculties were made the Incharge of various medicine care and pharmacy services. This division has encouraged them to have a sense of ownership of the services, strive towards constant and continual improvement and carry out research to study the perception of different users of the services and explore strategies for improvement.

A study on patient satisfaction with medication counseling services will be conducted shortly. The department has also conducted a drug utilization study among outpatients and the main findings of the study have been communicated to the MTC so that steps can be taken to further improve drug use.

TEACHING AND RESEARCH:

The pharmacology practical sessions are conducted in small groups and concentrate on teaching students to use essential medicines rationally. The sessions are based on two publications by the World Health Organization (WHO), the Guide to good prescribing and the Ethical criteria for medicinal drug promotion. Student feedback on the sessions is regularly obtained and the department plans to obtain detailed feedback on the practical sessions using a questionnaire followed by focus group discussions shortly.

The lecture classes have been modified to make the sessions more interesting, informative and interesting. Review-preview by the students, a ‘quick-think’ in the middle, summary, a ‘one minute paper’ summarizing the clear areas and the areas which need more explanation with regard to the particular day’s sessions are used. The department also provides a handout to guide and focus student learning. We plan to obtain detailed student feedback on the structured large group sessions shortly. The department plans to use research to improve teaching and to test the effectiveness of various innovative learning methods.

COLLABORATION WITH OTHER INSTITUTIONS:

The department collaborates closely with the department of Pharmacology at MCOMS to conduct research on improving the use of medicines. The two departments have collaborated on an article regarding the history of pharmacovigilance in Nepal, in a study on irrational fixed dose combinations (FDCs) in Nepal carried out in collaboration with Health Action International Asia Pacific (HAIAP), an INGO working on essential medicines and their rational use. A study has also been carried out on the various promotional materials used by pharmaceutical companies and supplied to the dic in the Manipal Teaching Hospital, Pokhara.

The department is an Associate Member of HAIAP, an INGO based in Colombo, Sri Lanka. The department had
conducted a preliminary evaluation of a questionnaire about medicines financing for HAIAP. The department had also collaborated with regard to providing teaching materials and developing a questionnaire to obtain student feedback with regard to an educational session on disease mongering for pharmacy students at the Universiti Sains Malaysia (USM), Penang, Malaysia. Members of the department are acting as supervisor for PhD and Masters students of Kathmandu University (KU) and USM.

FACTORS PROMOTING ACADEMICS IN THE DEPARTMENT:
The major positive factor has been the hard work and dedication of the faculty members of the department. A sense of ownership and pride has been created and faculties want to strive towards excellence in teaching, patient care activities and research. The faculty members of MCOMS, Pokhara and USM, Malaysia have visited the department, interacted with the faculty and impressed on them the importance of research and publications. The college administration and management have been supportive and have constantly encouraged research. The World Health Organization (WHO), the National Prescribing Service (NPS) of Australia, the Royal Pharmaceutical Society (RPS) of Great Britain and the American Society of Health-System pharmacists (ASHP) have supported us with books and other materials. The University of British Columbia (UBC), Vancouver, Canada has also been supportive.

Strategies which can be applied in other pharmacology departments in developing countries:

Concentrate on your core strengths. Do research which is feasible and relevant to your setting.

Promoting rational use of medicines can be a priority area for departments everywhere, especially in developing countries.

Divide responsibility among faculties. Create a sense of ownership and pride in the department.

Encourage people to write papers and publish.

Encourage your colleagues to be first authors.

Concentrate on teaching medical and other health science students to use essential medicines rationally. This is a priority area and research on how to further improve teaching and learning can be carried out.

Create a collaborative network with other medical and pharmacy schools in the country and abroad.

Collaborate with NGOs and INGOs working in the filed of essential medicines and rational use of medicines

FUTURE PLANS:
The department plans to continue to focus on its core areas – rational use of medicines, pharmaceutical (medicine) care services and pharmacology teaching and learning. The departmental presentations and the academic detailing sessions will be continued and strengthened. Other formats of academic detailing are being explored. The department also plans to write and publish review articles about new medicines, problem medicines and on medicine use problems in the future.

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