



## Seven Semesters of Personal Drug Selection in a Caribbean Medical School

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### ARTICLE INFO

Received : 23/02/2015

Accepted : 12/04/2015

Published : 10/06/2015

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### KEYWORD

Pharmacology  
Personal drugs  
Prescribing skills  
Rational therapeutics

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Personal drug selection is a process of developing standard treatments for common disease conditions using objective sources of medicine information. The exercise of Personal or P drug selection orients students to a sequential decision making process for solving therapeutic problems [1]. Students develop their set of P-drugs using national and international treatment guidelines, formularies, textbooks and other sources of medicine information. I had been previously involved in conducting sessions on P-drug selection and rational therapeutics in Nepal [2].

Xavier University School of Medicine (XUSOM), a private medical school in Aruba, Kingdom of the Netherlands admits students from the United States (US), Canada and other countries to the undergraduate medical (MD) program. From January 2013 the school shifted to a partially integrated curriculum and from January 2014 the school has shifted to a fully integrated curriculum with all basic science

subjects being taught in an integrated organ system-based manner with early clinical exposure [3]. Learning sessions on personal (P) drug selection have been conducted since January 2013. Like most other Caribbean medical schools XUSOM admits three intakes of students in January, May and September.

The department of Pharmacology emphasizes the learning of rational pharmacotherapy. At present the P-drug selection process is conducted from the third semester and sessions continue during the fourth and fifth semester. Table 1 shows certain P-drug selection exercises conducted in the institution. P-drugs are selected using the method described by Joshi and Jayawickramarajah [1]. The criteria of efficacy, safety, cost and suitability are used for selecting both a P-group and a particular P-drug within the group. The five step process defined in the 'Guide to good prescribing' is followed. After selecting a P-drug, students verify the suitability of the selected drug for a particular patient and

write a prescription. They then counsel a simulated patient regarding the proper use of the drug and management of the condition. Students work in small groups of six to eight students. Among the sources they consult are 'Guide to

good prescribing', standard pharmacology textbooks, International drug price indicator guide published by the Management Sciences for Health, the British National Formulary and the Physicians' Desk Reference.

Table 1: A selection of P-drug selection exercises used for teaching-learning at the institution

Epilepsy, Nervous system MD 2 semester

- A. Select a P-drug for generalized tonic-clonic seizures (GTCS).
- B. Ms. MM is a 12 year old girl suffering from GTCS. Verify the suitability of your selected P-drug for this patient.
- C. Write the prescription.
- D. Communicate well regarding the use of the drug and management of the condition.

Bronchial asthma, Respiratory system MD3 semester

- A. Select a P-drug for treatment of Bronchial Asthma
- B. Verify the suitability of the medicine you have selected for Ms. YY, a 32 year old lady suffering from bronchial asthma.
- C. Write the prescription.
- D. Communicate well with Ms. YY regarding the use of the drug and management of the condition.

Hypertension, Cardiovascular system, MD4 semester

- A. Select a P-drug for hypertension.
- B. Mr. XX. is suffering from mild hypertension. He is also suffering from peptic ulcer. Verify the suitability of your selected P-drug for this patient.
- C. Write the prescription.
- D. Communicate well regarding the use of the drug and management of the condition.

Diabetes mellitus, Endocrine system, MD5 semester

1.
  - A. Select a P drug for obese Type 2 diabetes mellitus. Define the diagnosis and therapeutic objective.
  - B. A 55 year old man weighing 90 Kg and height 170 cm comes to your clinic with a complaint of excessive urination and excessive hunger. His blood sugar level is 200mg/dl and you have diagnosed him as suffering from type 2 diabetes mellitus. Verify the suitability of YOUR selected P-drug for this patient.
  - C. Write the prescription.
  - D. Communicate well regarding the use of the drug and management of the condition.
2.
  - A. Select a P-drug for type 1 diabetes. (Define the diagnosis and therapeutic objective).
  - B. Verify the suitability of your selected P drug for a 14 year old girl suffering from diabetes.
  - C. Write the prescription.
  - D. Communicate well regarding the use of the drug and management of the condition.

When introduced in early 2013 P-drug selection was a new exercise in the institution. Getting students involved in small group work and in learning to access and evaluate objective unbiased sources of medicine information was a challenge. After seven semesters we have been able to gradually overcome many of the problems. P-drug selection is now an established activity in the institution.

In a Nepalese medical school students' knowledge about the process of P-drug selection was tested during a practical assessment in pharmacology [4]. At Aruba in session assessment of students are conducted and ability for collaborative work and attitude and

behaviour during the module, professionalism and involvement in small group activities are assessed. At the end of the fifth semester students are assessed with regard to their ability to select an appropriate P-drug for a disease condition, verify the suitability of their selected P-drug for an individual patient and write a prescription as a written exercise.

In comparison to Nepal, in Aruba students widely use online information sources and electronic copies of books while carrying out the exercise of P-drug selection. Students present their findings using either flip charts or power point slides. We emphasize the correct format of the prescription and providing proper

information to both the patient and the pharmacist. The importance of and advantages of prescribing using generic names is repeatedly stressed.

We plan to continue and further develop the exercise of P-drug selection at the institution. We also plan to further strengthen the students' ability to use independent unbiased sources of medicine information. Our experiences with P-drug selection will be of interest to educators in other medical schools both in developed and developing nations.

### Reference

1. Joshi MP, Jayawickramarajah PT. A problem-orientated pharmacotherapy package for undergraduate medical students. *Med Teach*. 1996;18:75–6.
2. Shankar PR, Jha N, Bajracharya O, Shrestha R, Thapa HS. Teaching Pharmacology at a Nepalese Medical School: The Student Perspective. *Australas Med J*. 2010;1:14-22.
3. Shankar PR, Bharti R, Ramireddy R, Balasubramaniam R, Nuguri V. Students' perception of the learning environment at Xavier University School of Medicine, Aruba: a follow up study. *J Educ Eval Health Prof*. 2014;11:9.
4. Shankar PR, Gurung SB, Jha N, Bajracharya O, Ansari SR, Thapa HS. Practical assessment in Pharmacology at a new Nepalese medical school. *J Clin Diagn Res*. 2010;4:3314-6