CMPL 7019 PHARMACOLOGY OF CHINESE MEDICINES

Credit Points 10

Legacy Code 400569

Coordinator Dilip Ghosh (https://directory.westernsydney.edu.au/search/name/Dilip Ghosh/)

Description This subject will introduce the student to the pharmacology and toxicology of Chinese herbal medicine. The subject will cover the pharmacological principles of Chinese herbal medicines and identify basic active constituents that contribute to the actions of Chinese herbal medicines. This subject will also introduce safety and toxicology of herbal medicines including mechanisms and measurement of toxicity, known potential adverse reactions of commonly used Chinese herbs, known potential interactions with Western pharmaceuticals and management of adverse events.

School Health Sciences

Discipline Traditional Chinese Medicine

Student Contribution Band HECS Band 2 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Postgraduate Coursework Level 7 subject

Assumed Knowledge

Equivalent to undergraduate training in Traditional Chinese Medicine.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Explain the principles and mechanisms of pharmacokinetics, pharmacodynamics and the pharmacological actions of Chinese herbs and key constituents
2. Critically analyse the relationship between classes of drugs, Traditional Chinese Medicine (TCM) theories and classification of Chinese herbs
3. Describe how toxicity of herbal medicine is understood, mechanisms of toxicity, and how toxicity is tested for and measured; and explain the toxicity (including toxic components), dosage ranges, specific preparation requirements, cautions and contraindications associated with a variety of Chinese herbs and herbal medicinal formulae
4. Identify known potential adverse reactions to specific Chinese herbs and known potential interactions between specific Chinese herbs and Western pharmaceuticals
5. Justify Chinese herbal medicine prescribing considerations that need to be taken into account for patients taking western pharmaceuticals
6. Explain the management of adverse reactions
7. Prepare a report on an adverse event according to the adverse event reporting protocol used in western medicine

Subject Content

1. Principles of drug disposition
- absorption
- Distribution
- metabolism
- Excretion
2. Principles of pharmacokinetics
3. Principles of pharmacodynamics: mechanisms of drug action
4. Mechanisms of drug interactions
- Pharmacokinetic interactions
- Pharmacodynamic drug interactions
5. Classes of pharmaceutical drugs
6. Pharmacological actions of classes of Chinese herbs and commonly used herbs
7. Relationship between classes of drugs, TCM theories and classification of herbs
8. Chinese herbal medicine toxicity and adverse reactions
9. Concept of toxicity
10. Mechanisms of toxicity
11. Toxicity testing and measurement
12. Toxic Chinese herbs and components: identification, dosage, specific preparation requirements, cautions/contraindications
13. Known potential adverse reactions to specific Chinese herbs
14. Concurrent use of Chinese herbs and western pharmaceuticals: prescribing considerations, known potential interactions
15. Management and reporting of adverse reactions