Drug interactions: Mechanisms and clinical application

Learning Outcome Objectives
Upon successful completion of this lesson, you should be able to:
1. Define the terminology used to describe drug interactions.
2. Describe basic mechanisms of drug interactions.
3. Identify patients, drugs and drug combinations at risk for clinically significant drug interactions.
4. Use a systematic approach to identify, resolve, minimize or prevent drug interactions.
5. Advise patients and healthcare professionals on the management of, and strategies for, the prevention of clinically important drug interactions.
6. Access and interpret appropriate resources.

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Dorothy Li is the information pharmacist at Drug Use Optimization, Division of Pharmaceutical Services of the B.C. Ministry of Health Services. After receiving her B.Sc.Pharm., she completed a pediatric pharmacy residency at the Hospital for Sick Children in Toronto. Dorothy developed her interest in drug interactions while working as a drug information pharmacist at the B.C. Drug and Poison Control Centre. She has lectured and facilitated tutorials on drug interactions at the University of British Columbia (UBC)’s undergraduate pharmacy program and the Canadian Pharmacy Practice Programme.

Expert Reviewer: Jacques Turgeon, B.Pharm., Ph.D.
Jacques Turgeon was appointed director of research, Centre hospitalier de l’Université de Montréal, in the spring of 2007. In addition to previous positions at other universities, he also served as vice rector–research and as dean of the Faculté de pharmacie, Université de Montréal. He received his bachelor’s degree from Laval University as well as a M.Sc. in pharmacokinetics and a Ph.D. in drug metabolism. He undertook post-doctoral studies in clinical pharmacology at the University of Nashville. Dr. Turgeon has integrated in his research approaches in vitro (patch-clamp technique, in vitro metabolism and molecular biology) models as well as designed and performed studies in healthy volunteers and patients. He is recognized internationally for his work on CYP450s and mechanisms of drug-drug interactions.