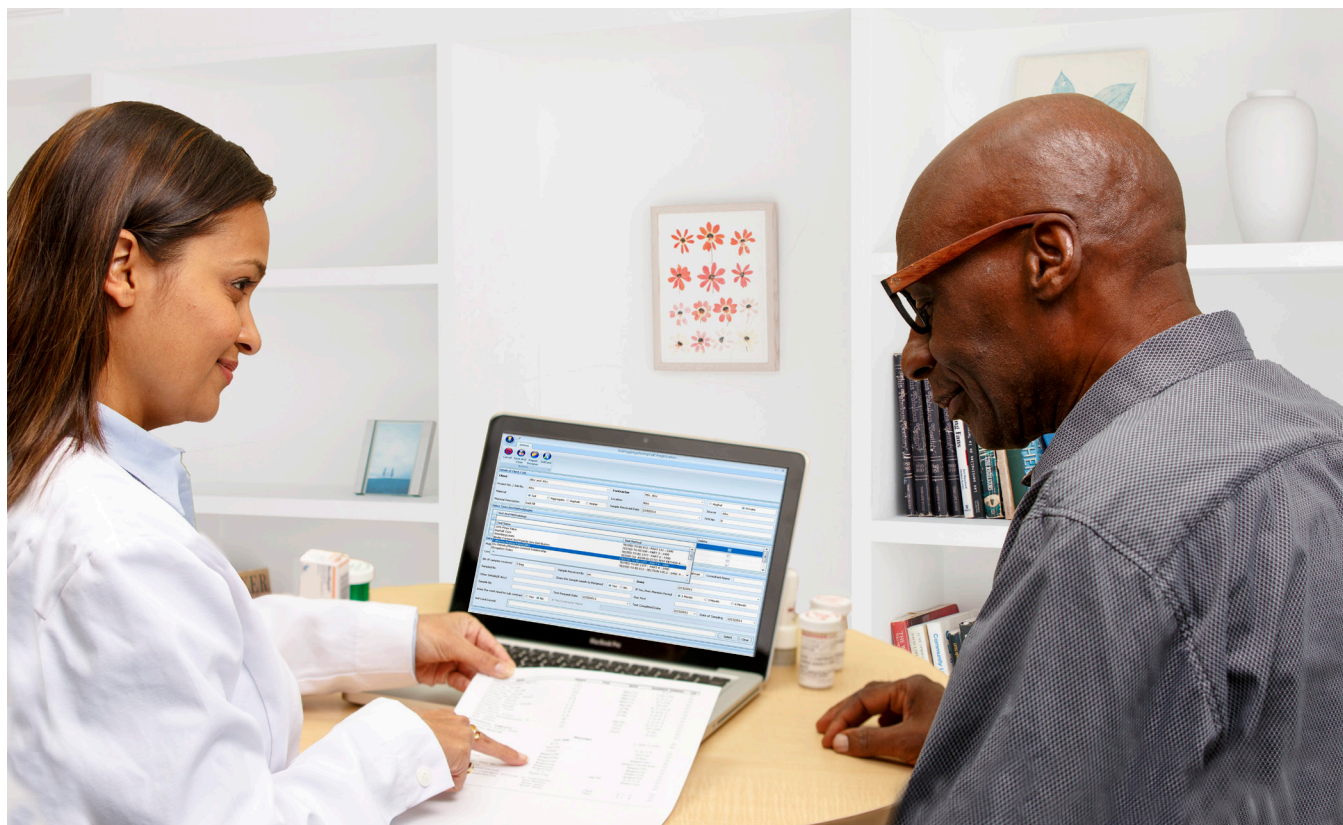


COURSE PROSPECTUS

LAB TESTS



Ordering, Monitoring and Interpreting Laboratory Tests
to Optimize Medication Management

LAB TESTS

A Canadian Pharmacists Association continuing professional development program



CANADIAN
PHARMACISTS
ASSOCIATION

ASSOCIATION DES
PHARMACIENS
DU CANADA



12.75
CEUs

LAB TESTS

Ordering, Monitoring and Interpreting Laboratory Tests to Optimize Medication Management

Description

This online continuing education certificate course educates pharmacists on how to use laboratory results to provide medication management. In addition to providing background on overall principles, the course highlights the main lab results that illustrate the need for, or are affected by, drug therapy. Supplemented by case studies, the course is designed as a practical program to quickly bring pharmacists up to speed in ordering and monitoring lab results.

Upon successful completion of this continuing education certificate course you will be able to:

1. Define basic terms describing aspects of laboratory testing such as specificity, sensitivity, precision, etc.
2. Identify situations in which a lab test would be a reasonable step to monitor a patient without causing undue burden on the patient or the health care system.
3. Determine if lab values are within a reference range.
4. Identify drugs that could be contributing to abnormal lab results.
5. Identify the expected outcome of initiating medications on lab results.
6. Use lab results to guide therapeutic choices.
7. Be aware of how the assessment of lab values can enhance the provision of expanded scope services such as medication reviews, pharmaceutical opinions and prescription adaptation.

This 12.75 CEU modular course includes modules on the following topics. Each module consists of narrated lecture content, on-the-go activities (to review and practice what you've learned) formative module assessments and a summative assessment based on a series of patient cases.

Modules include:

MODULE 1: Basic Skills in Interpreting Laboratory Tests | 1.5 CEUs, File # 8002-2014-969-I-P

- Summarize basic concepts in interpreting lab data including: sensitivity, specificity, predictive value, accuracy and precision.
- Define reference range and identify factors that affect a reference range.
- Identify patient-specific factors to consider when assessing laboratory data.
- Describe a rational approach to interpreting laboratory data.

MODULE 2: Electrolyte Tests | 1.5 CEUs, File # 8002-2014-970-I-P

- Describe basic Na⁺ and K⁺ abnormalities and common causes of hypernatremia, hyponatremia, hyperkalemia and hypokalemia.
- Describe Ca⁺⁺, Phosphate and Mg⁺⁺ abnormalities and describe signs and symptoms of these abnormalities.
- Briefly review acid-base status assessment.

MODULE 3: Kidney Function Tests | 2.0 CEUs, File # 8002-2014-971-I-P

- List renal function tests.
- Describe methods to characterize renal function.
- Identify patient-specific factors to consider when assessing renal function.
- Review equations for assessing renal function (e.g., Cockcroft-Gault vs MDRD).

MODULE 4: Liver Function Tests | 1.75 CEUs, File # 8002-2014-972-I-P

- Summarize and differentiate between liver function and liver injury tests.
- Determine whether a patient has synthetic, cholestatic or hepatocellular dysfunction based on liver function tests.

LAB TESTS

Ordering, Monitoring and Interpreting Laboratory Tests to Optimize Medication Management

- Describe how Child-Pugh score contributes to drug dose adjustments in patients with hepatic dysfunction.

MODULE 5: Endocrine and Lipid Tests | 3.0 CEUs, File # 8002-2014-974-I-P

- List common endocrine function and cholesterol tests.
- Describe when to use each test to assess glucose control, thyroid function and cholesterol control.
- Select appropriate lab tests for patients on specific drugs affecting blood glucose, thyroid function and cholesterol.
- Suggest dose changes based on lab results.

MODULE 6: Hematology Tests | 2.0 CEUs, File # 8002-2014-973-I-P

- Define the various blood cells and describe their functions.
- Interpret laboratory tests relating to red blood cells, including: hemoglobin, hematocrit, RBC indices, reticulocyte count and RDW.
- Interpret laboratory tests relating to white blood cells, including WBC and differential.
- Interpret INR test results.

MODULE 7: Putting It All Together | 1.0 CEUs, File # 8002-2014-975-I-P

Summative module where pharmacists bring all their skills and learning together in a series of patient cases. By the end, pharmacists will be able to:

- Assess a patient's lab values to determine any abnormalities.
- Interpret lab values in a clinical context.
- Identify lab values needed to assess drug therapy.

Accreditation and Completion Requirements

Each module has been accredited by the Canadian Pharmacists Association (CPhA), a CCCEP-approved accredited provider. To earn the Statement of Completion and CEUs for each module, participants must earn a score of 70% or more on each self-assessment quiz for that module. You will have up to three attempts at each quiz.

Module 7 is a summative module. You must complete and pass the self-assessment quiz for Modules 1 to 6 before you will be permitted to attempt the final summative self-assessment in Module 7. Earning a passing score of 70% or more on Module 7 will earn you the Continuing Education Certificate in Ordering, Monitoring and Interpreting Lab Tests.

Participants who complete and pass the entire program may state that they hold a Continuing Education Certificate in Ordering, Monitoring and Interpreting Lab Tests to Optimize Medication Management. The certificate does not provide participants with professional certification credentials.

Availability

This self-directed online course is available for registration up until its accreditation expiry date of March 1, 2016. Annual accreditation renewal is expected. We recommend you complete the course within 90 days of registration.

Pricing

See www.pharmacists.ca/labtests for up-to-date pricing and special offers.

Content Coordinator and Adapter

Barry Power, BScPhm, PharmD, Pharmacist, Rideau Family Health Team (Ottawa), Adjunct Assistant Professor, School of Pharmacy, University of Waterloo, Ontario

Authors

Andrea Edginton, PhD, Faculty, School of Pharmacy, University of Waterloo, Ontario

Eric Schneider, BScPhm, PharmD, Associate Director, School of Pharmacy, University of Waterloo, Ontario

Angela Stark, BScPhm, ACPR, Pharmacist, Grand River Hospital (Kitchener), Adjunct Clinical Faculty, School of Pharmacy, University of Waterloo, Ontario

Subject Matter Experts and Advisors

CPhA gratefully acknowledges the contribution of the following subject matter experts to both the concept and content of this course:

Dean Ast, BSP, Pharmacy Practice & Pharmaceutical Policy Consultant, Saskatchewan

Christine Hughes, BscPharm, PharmD, Associate Professor, Faculty of Pharmacy & Pharmaceutical Sciences, University of Alberta, Alberta

Natalie Kennie-Kaulbach, BSc(Pharm), PharmD, RPh, Clinical Pharmacist, Summerville Family Health Team, Mississauga, ON, Assistant Professor (status-only), Department of Family and Community Medicine, University of Toronto, Ontario

Myla Wollbaum, BSP, Director of Professional Practice, Pharmacists' Association of Saskatchewan, Saskatchewan

Acknowledgements

Ordering, Monitoring and Interpreting Laboratory Tests to Optimize Medication Management (Lab Tests) was developed by the Canadian Pharmacists Association (CPhA). Some learning content has been provided by the University of Waterloo School of Pharmacy, and is used or adapted under licence.

LAB TESTS



Register at www.pharmacists.ca/labtests
or contact us at cpd@pharmacists.ca or 1-800-917-9489