

Harnessing the Value of Laboratory Medicine:

Improving patient outcomes by transforming healthcare delivery

Laboratory stewardship: the right test for the right patient at the right time with appropriate interpretation to inform clinical decisions for better outcomes and sustainability



“Every day, laboratory experts make critical decisions about cancer treatment, manage chronic conditions like diabetes, and screen for high cholesterol levels, heart disease, and other disorders. Without advanced, high-quality lab medicine, patients might receive the wrong diagnosis, inappropriate treatment, or no treatment at all if the disease isn’t accurately detected and diagnosed. Trusted testing is essential to the high quality of care and quality of life for all patients.”¹



Results influence
50-70%
of clinical decisions,
including treatment plans²⁻⁵



> 4,200

diagnostic tests publicly funded⁶

- Guide patient management⁷
- Diagnose and monitor disease⁷
- Predict treatment response, prognosis⁷
- Assess risk of disease or disorder development⁷



Estimated

3 to 5%

of the healthcare budget⁸⁻¹¹

- Historically has been excellent value for money but newer technologies will require additional investment



Rapid shifts are affecting Laboratory Medicine

- There is greater focus on appropriate selection and use of Laboratory Medicine.
- Healthcare innovations are changing how and what Laboratory Medicine is delivering and are increasing the need for connectivity to patients.
- More and more innovative testing and reporting technologies are becoming available (e.g., personalized/precision medicine, molecular, genetic and point of care testing, bioinformatics, digital technologies). Laboratory Medicine is at the core of these trends.
- New technologies further support prevention, early detection, disease treatment, and prognosis.
- Centralized and distributed laboratory services must be managed as healthcare delivery models change.



Laboratory Medicine priorities are focused on **patient safety** and **better outcomes**

Laboratory Medicine will be recognized as a “best practices” leader for engaging stakeholders in effectively assessing and adopting diagnostic innovations (including processes) to support positive change in value- and outcome-based healthcare fostering improved patient/family and health system outcomes.

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The **LabCANDx** Laboratory Medicine Coalition is a group of stakeholders (providers, users, and suppliers) committed to promoting and advancing recognition of Laboratory Medicine's contribution to effective and appropriate patient-focused healthcare, fostering improved patient/family and health system outcomes.



Our Vision

Enhancing Laboratory Medicine to improve patient and health system outcomes.



Our Mission

Being the common voice of Laboratory Medicine actively engages with and advocates to stakeholders (communities) to fuel the adoption of Laboratory Medicine innovations as an enabler for value-based healthcare to promote and improve patient/family-centric care and health system outcomes.

Selected Organizations Supporting LabCANDx

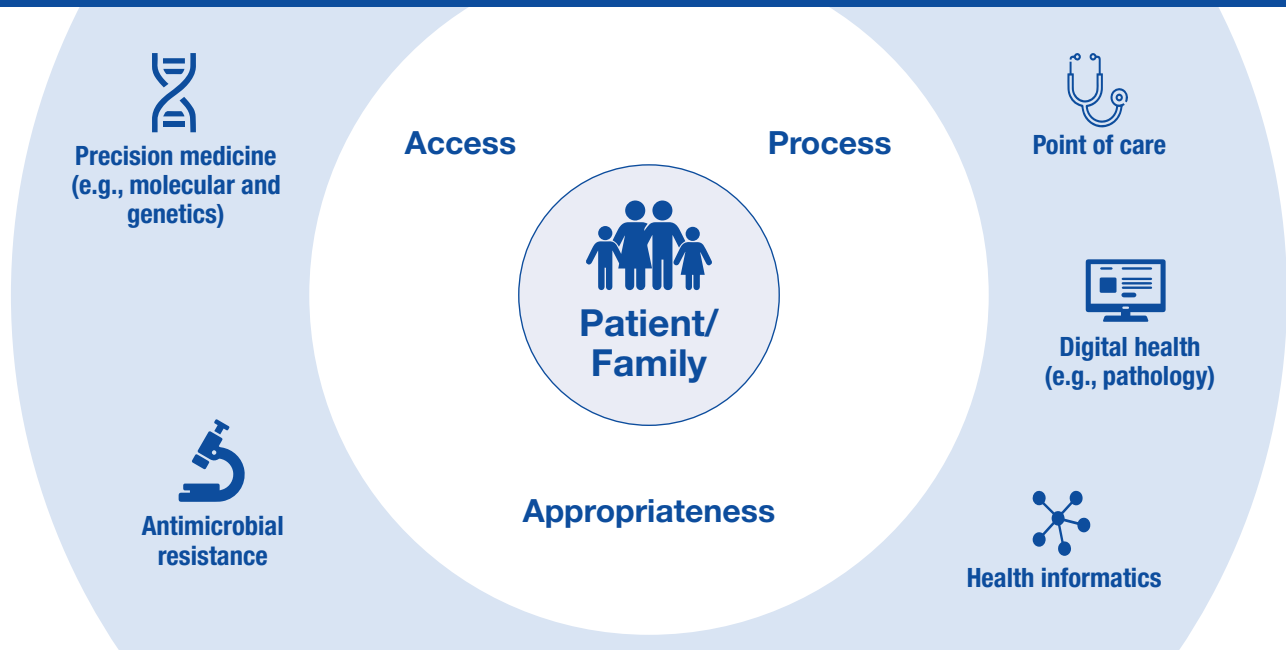
Abbott Laboratories, Limited	Dynacare
Association des médecins microbiologistes-infectiologues du Québec	DynaLIFE Medical Labs
BD - Canada	Eastern Regional Health Authority
Beckman Coulter Canada LP	Institute for Quality Management in Healthcare
BioMérieux Canada, Inc	Hologic Canada
Bio-Rad Laboratories (Canada) Diagnostic Group	LifeLabs
Biron Laboratories (Biron Health Group)	London Health Sciences Centre
Canadian Association for Clinical Microbiology and Infectious Diseases	Medtech Canada
Canadian College of Health Leaders	Myriad Genetics Canada Corp
Canadian College of Medical Geneticists	Nova Scotia Health Authority
Canadian Patient Safety Institute	Quidel
Canadian Society for Medical Laboratory Science	Roche Diagnostics
Canadian Society of Clinical Chemists	Shared Health Manitoba
Canadian Standards Association	Siemens Healthcare Limited
College of Physicians and Surgeons of Alberta	Western Canada Diagnostic Accreditation Alliance
Diagnostic Services Manitoba	Vancouver Island Health Authority

For more information contact LabCANDx@gmail.com

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Supporting Laboratory Medicine innovations improves patient outcomes and safety and drives health care sustainability

Immediate Objectives Propel Health System Improvements: Outcome-based Innovations



Strategic Imperatives

- Influence the future of healthcare
- Standardize accreditation, quality, and safety
- Share and leverage knowledge/insights (including knowledge translation)

Strategic Pillars

Leadership

Represent Laboratory Medicine with a quality and patient-centric mandate, consistent message, and national voice that complements the missions and goals of member organizations

Innovation

Help drive decisions on appropriate innovation adoption for Laboratory Medicine and better patient/family care

Education & Utilization

National leadership and participation in initiatives addressing accreditation and appropriate utilization of laboratory testing to enhance quality safe patient care



Laboratory Medicine plays a key role in the patient journey

Breast Cancer Example

Patient detects anomaly
Suspicion of breast cancer:

- CBC** = complete blood count
- FNA** = fine needle aspiration
- FISH** = fluorescence in situ hybridization
- HER2** = human epidermal growth factor receptor 2
- HCG** = human chorionic gonadotropin
- INR** = international normalized ratio
- MLT** = medical lab technologist
- MLA** = medical lab assistant

Day 1

Primary Care Physician

Chemistry, Hematology, Clinical Biochemistry

- CBC
- INR

Lab staff involved:

- MLA
- MLT
- Hematopathologist and/or Clinical/Medical Biochemist

Days 2-8

Mammogram

Chemistry, Hematology, Biochemistry

- Creatinine
- Beta HCG

Lab staff involved:

- MLA
- MLT
- Clinical/Medical Biochemist

Days 9-22

Ultrasound-guided biopsy, stereotactic biopsy **OR** FNA and pathology signed off and reported

Pathology, Cytology and Genetics

Lab staff involved:

- MLA: Register specimen
- MLT: Slide prep, FISH
- Cytotechnologist: Screen FNA
- Pathologist Assistant: Gross description of specimen
- Pathologist: Review and diagnosis
- Second Pathologist: Secondary review and diagnosis
- Lab geneticist

Days 23-36

Surgical consult and medical/radiation oncology consult

Days 30-60

Surgical excision (mastectomy/lumpectomy)

Pathology and Genetics

- INR
- HER2, FISH
- Creatinine

Lab staff involved:

- MLA: Register specimen
- MLT: Slide prep
- Pathologist Assistant: Gross description of specimen
- Lab geneticist
- Pathologist: Review and diagnosis

Days 37-60

Chemotherapy/radiation and/or palliative care and/or genetic risk assessment

Symptomatic Support

Lab staff involved:

- MLA
- MLT
- Clinical Microbiologist
- Clinical/Medical Biochemist
- Lab geneticist (BRCA)

The patient journey was adapted from a map provided by Diagnostic Services Manitoba and Cancer Care Manitoba

We recognize the roles of other medical professionals in the patient journey. This map refers only to the role of Laboratory Medicine.

References

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