The Canadian Society for Medical Laboratory Science (CSMLS) is the national certifying body for medical laboratory technologists (MLTs) and medical laboratory assistants/technicians (MLAs), and the national professional society for Canada’s medical laboratory professionals. We are a not-for-profit organization that promotes and maintains a nationally accepted standard of medical laboratory technology and protects the professional identity and interests of the medical laboratory profession. The document herein contains the professional Code of Ethics and supplementary resources to guide the use of the ethical codes.
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Message from President and CEO

After countless conversations with our members, the CSMLS has become ardently aware of the need for ethical guidance within the medical laboratory profession. The medical laboratory is a unique workspace and so they require unique solutions.

With the support of the Board of Directors, the CSMLS embarked on a mission to learn and truly understand the needs of medical laboratory professionals in their day to day work. We gained a better understanding of the challenges that were common, but rarely discussed openly or worse, often ignored when voiced. CSMLS would like to see this change and will support professionals across Canada in the endeavour. Together, we will change the landscape.

We were able to assemble a talented and dedicated group of volunteers and staff members that helped to sort and categorize the information we discovered and turn it into a tangible, reliable resource.

To say we are proud of this document is an understatement. We are eager to share this Code of Ethics and all the research that went into developing it with medical laboratory professionals, as well as other health care professionals.

Our intention is that this Code becomes a living document, one that lives and breathes in the work of a united medical laboratory community. We hope it contributes to building ethical practitioners through open and honest dialogue. Thus, helping to decrease the stigma associated with ‘speaking up’, while supporting public awareness of the medical laboratory profession, its health care professionals, and promoting continual quality care.

Christine Nielsen
CSMLS Chief Executive Officer

Chris Hirtle
2016 CSMLS President
CSMLS would like to extend its gratitude to the devoted volunteers who have contributed their knowledge and expertise in the creation of the Code of Ethics and supplementary documents. The Ethics Working Group was a great example of members volunteering their time to advance the medical laboratory profession. It is believed that the work completed by this group will support members, now and in the future, by helping to alleviate some of the burden associated with ethical dilemmas.

We would like to take this moment to recognize the following members and the CSMLS team that contributed to this project:

**Profession Representatives:**
- Nancy Banks, ART
- Kathleen (Kate) Gagliardi BA, ART
- Greg Hardy, MLT, B Tech, BEd, MEd
- Sharon Leal, R.T., M.Ed.

**CSMLS Representatives:**
- Christine Nielsen, CEO (Executive Champion)
- Bessie Carydis, Director, Certification & Prior Learning Assessment (Leadership Champion)
- Lisa Low, Executive Assistant
- Laura Zychla, Researcher

We would also like to show our appreciation to Michael Angers and the School of Health Services Management at Ryerson University for the completion of a research study examining ethical issues in the medical laboratory profession. This work highlighted our member’s concerns and contributed to ideas and content in this document.
Who We Are

The Canadian Society for Medical Laboratory Science (CSMLS) is the national certifying body for medical laboratory technologists (MLTs) and medical laboratory assistants/technicians (MLAs), and the national professional society for Canada's medical laboratory professionals. We are a not-for-profit organization that promotes and maintains a nationally accepted standard of medical laboratory technology and protects the professional identity and interests of the medical laboratory profession.

We conduct national certification exams for those who meet the prescribed standards. We also conduct Prior Learning Assessments (PLA) for internationally educated professionals. Once members are certified, CSMLS offers professional development and continuing education programs to help members update their skills and knowledge and achieve their professional goals.

Our Members

Medical laboratory professionals play a vital role in Canada’s healthcare system. With technical expertise, they provide the analysis of accurate, life-saving laboratory results that guide the diagnosis and treatment of patients. Our members are proud and passionate about their valuable contributions to patient care. As members of inter-professional healthcare teams serving the needs of their patient population, ethical dilemmas are not uncommon.

The Professions

Through education and experience, medical laboratory professionals can specialize in several components of the profession. The professions we serve include:

- **Medical Laboratory Technologists** (MLTs) use a variety of complex instruments to analyze tissue samples, blood and other body fluids as a part of the diagnostic procedure. MLTs provide the results of these sophisticated tests to physicians, allowing them to make accurate diagnosis and if needed, appropriate treatment.

- **Medical Laboratory Assistants** (MLAs) work under the supervision of MLTs, performing the practical components of sample analysis. MLAs sort, prepare and sometimes process samples that will be tested and analyzed by a MLT. MLAs often collect samples, such as blood, and are the laboratory professional that likely interacts directly with patients.

- **Cytotechnologists** analyze cellular changes that can determine the presence of specific diseases. Mostly through the use of slides under a microscope, cytotechnologists are able to detect pre-cancerous cells, different cancers and other cellular based infections. An abnormal finding would be sent to a pathologist for a final diagnosis.

- **Genetic Technologists** use a variety of instruments to analyze and diagnose changes or abnormalities in chromosomes and DNA, which are unique to every individual. A genetic technologist's analysis of these cells can lead to a diagnosis of genetic diseases.
Introduction

Medical Definition:
The rules or standards governing the conduct of a person or the conduct of the members of a profession.

Cultural Definition:
The branch of philosophy that deals with morality. Ethics is concerned with distinguishing between good and evil in the world, between right and wrong human actions, and between virtuous and non-virtuous characteristics of people.

The Canadian Society for Medical Laboratory Science (CSMLS) is committed to promoting the high ethical and professional values practiced by our members throughout Canada and the world. CSMLS created the first version of the Code of Professional Conduct in the late 1980’s (which replaced the original Code of Ethics) and the Standards of Practice in 1995 to guide medical laboratory professionals as contributors to patient care and members of interdisciplinary healthcare teams. Guidelines for professional ethics have historically been embedded in these documents but as society evolves and health care becomes more complex, a need has grown to clearly define ethical principles in a prominent and explicit manner.

This ethics document has been created to strengthen our professional identity and provide cohesive guidance in the challenging situations medical laboratory professionals face on a daily basis in their workplace. The content was born from rigorous methodology to guarantee the use of quality ethical codes, with recognition for the fluidity and adherence to adaptation that will be required across time. It is the dedication of the Ethics Working Group (volunteer members) that this goal has been achieved in addition to the previous work of provincial societies and regulatory bodies before them.

We ask that you take a moment to review this document in detail, and continue its life through collegial conversation and ethics consultation. It is through the personification of the ethical codes that this document will enlighten the profession and provide continued growth for many generations of medical laboratory professionals to come.
Grounding Principles

To guide the creation of the Code of Ethics, the following principles were agreed upon by the Ethics Working Group to act as perimeter walls, focusing the goals of this document. The Code of Ethics and supplementary documents shall:

1. Provide guidance to Medical Laboratory Professionals\(^1\) (MLPs) on CSMLS expectations of their member’s behaviour within the profession. This guidance should be in a language that allows for future changes in practice, law and society.

2. Apply to all members (e.g., direct practice, management, education, research, industry roles).

3. Be consistent with CSMLS values, member’s opinions and grounded in the four Principles of Bioethics.


5. Be based on Canadian MLP content, international MLP content and Canadian non-MLP content, in that order of priority.

6. Be based on a holistic approach and not act as a standalone document (i.e., it should include guidance, examples and be a platform to start discussion).
Fact Sheet

A Code of Ethics is an intricate array of ideas and boundaries that work in tandem with other considerations. The following facts provide further structure around the purpose of the Code of Ethics and how it can be applied.

• The Code of Ethics contains the minimal voluntary standards governing the ethical conduct of each CSMLS member. It is not an exhaustive list of codes.

• The Code of Ethics is dependent upon members’ understanding and reinforcement of compliance by healthcare professionals and the public. Those who fail to comply may be subjected to disciplinary proceedings under the bylaws of a regulatory college.

• The Code of Ethics is to be read and applied in light of the supplementary information and definitions contained in this document. Where guidance and case studies have been provided, the intent is to assist in the understanding and application of the ethical codes. However, further consultation for specific occurrences may be required.

• The Code of Ethics should be considered in conjunction with the Code of Professional Conduct, Standards of Professional Practice and other relevant policy material locally, provincially/territorially and nationally.

• Should an individual be accountable to multiple policy documents of the same nature, the document that is strictest in its requirements for a given situation should be adopted.

• Each ethical code should be considered and applied in conjunction with other codes. As ethical dilemmas are complex by nature, the codes should be used relationally rather than separately.

• CSMLS recommends continued professional development in ethics to help medical laboratory professionals develop the knowledge, skills, judgment and attitudes needed to manage or safeguard against ethical dilemmas in the workplace. Additional consultation with healthcare professionals, regulatory authorities, ethicists, or others who have relevant expertise is also recommended.
Principles of Bioethics

Comprised by Beauchamp and Childress\textsuperscript{2}, the principles of biomedical ethics have become one of the most widely used frameworks worldwide for considering ethical issues in health care. Unlike some approaches that apply ethical principles to individual cases (top-down approach), these principles guide common thinking about ethical principles in general practice (bottom-up approach). The four principles of bioethics describe a set of minimum moral conditions on the behaviour of healthcare professionals.

**Autonomy**
Also known as the principle of human dignity, autonomy is Latin for “self-rule”\textsuperscript{3}. Healthcare workers have an obligation to respect the decisions made by cognizant patients about their own treatment. Patients must be fully informed about their illness. As long as patients are competent they have the right to make their own decisions about their care, even if their family and physician do not agree (informed consent).

**Beneficence**
Do what’s good for the patient under all circumstances. Patients do not necessarily have to agree with their physician on their course of treatment. We must respect the good as determined by the patient (see Autonomy).

**Non-maleficence**
First do no harm. Disclosure of risk or side-effects of treatment is necessary, and is especially important when a cure is not possible. In treating healthy patients (e.g., preventive care, immunizations) we have to decide if the benefits outweigh the risks.

Beneficence differs “from non-maleficence in that beneficence is a positive requirement for action, whereas non-maleficence is a negative prohibition against action.” \textsuperscript{4}

**Justice**
Justice refers to how limited healthcare resources are distributed. We must treat all patients equally, fairly and impartially (respect their rights). Patients in similar situations should have access to the same care regardless of their financial position. This may cause a conflict between beneficence, autonomy and justice.

**Corollary principles**
*Autonomy: Be honest with others and keep promises.*
*Autonomy and Beneficence: Beneficence and the autonomy of patients may overlap and conflict.*
*Non-maleficence: “When harm cannot be avoided... minimize the amount of harm that we do.”* \textsuperscript{5}
*Beneficence and non-maleficence: “Actions must produce more good than harm.”* \textsuperscript{6}
*Justice: Do not create unnecessary problems.*
*Justice: Do not waste limited resources that could be used for good.*
*Beneficence and justice: Support those who are not treated fairly.*

**Other Ethical Standards**
Informed Consent, Disclosure, Confidentiality, Integrity, Honesty/Veracity, Fidelity, Respect
CSMLS Code of Ethics

The Canadian Society for Medical Laboratory Science has developed a Code of Ethics in consultation with its members. The Code serves to define and expand the inherent ethical concepts contained in the CSMLS Code of Professional Conduct, to document expectations of ethical behaviour for all medical laboratory professionals (MLPs), and to provide a framework during professional and personal self-evaluation.

The ethical principles contained herein are not listed in order of importance, but rather, should be considered in relation to each other during their application within situations involving ethical dilemmas.

MLPs shall practise in compliance with all current provincial and federal legislation for the protection and integrity of patients and their specimens, colleagues, health care providers, society, the environment and one’s self. Within this practice, on a fundamental level, they will conduct themselves in a manner that is conscientious, compassionate, honest and equitable.

MLPs shall uphold the vision of the CSMLS Code of Ethics by adhering to the following principles of ethical conduct, as well as the underlying concepts.

Safe Practices

1.1 Practise only those disciplines within the medical laboratory profession for which CSMLS certification has been achieved.

1.2 Practise only those procedures for which qualification has been achieved or officially delegated by an appropriate institutional authority, where the member has the current requisite knowledge, skills and judgment to ensure and demonstrate competence.

1.3 Recognize risk prone situations in order to minimize harm to patients, staff and self.

1.4 Utilize professional and institutional mechanisms to intervene when witness to unsafe, incompetent or unethical practices.

1.5 Assume responsibility for errors one has committed or observed and take immediate action to prevent or minimize associated harm.

1.6 Advocate for working environments that support safe, competent and ethical practices.

Confidentiality

2.1 Understand and comply with applicable privacy legislation and policies regarding the collection, use and disclosure of confidential information.

2.2 Preserve and protect the confidentiality of any information, either medical or personal, acquired through professional contact (in person, through collegial conversations, via medical records etc.) to safeguard patients.

2.3 Abstain from using confidential information to the detriment of a patient, or with direct or indirect intent to benefit oneself or another person.

2.4 Access information relevant only to the professional task being performed.

2.5 Communicate and release information only with written or formal authorization, or where so ordered or expressly authorized by law.

2.6 Recognize and disclose conflicts of interest and resolve them in a manner which maintains the integrity of personal health information and protects the best interest of patient care.
**Professional Development**

3.1 Reflect on one’s fitness to practise and expand one’s knowledge, skills, judgments and attitudes through continued professional development.

3.2 Contribute to the development of the profession by sharing one's knowledge and experience.

3.3 Participate in interprofessional collaborative and educational processes, and the development of partnerships which contribute to positive patient outcomes.

3.4 Contribute to the advancement of the profession by:
   - improving the body of knowledge,
   - adopting scientific advances that benefit the patient, and
   - maintaining high standards of practice and education.

**Accountability**

4.1 Be responsible first to the patient, then to society and the environment for safe and lawful practice and the sustainable use of resources.

4.2 Advocate one’s role as a leader in the promotion of health and delivery of quality care.

4.3 Be responsible for the quality, integrity and reliability of the laboratory services one provides.

4.4 Ensure organizational consent processes are followed, including:
   - Patients have the right to be informed
   - Patients have the right to refuse or withdraw from procedures

**Behaviour and Attitude**

5.1 Provide service with dignity and respect to all, regardless of race, religion, sexual orientation, sex, gender identity, age, health status, or mental or physical disability.

5.2 Prioritize one’s work to ensure that each patient receives optimum care.

5.3 Encourage the trust and confidence of the public through high standards of professional competence, conduct and deportment.

5.4 Be reasonably accessible within the confines of your duties.

5.5 Collaborate with patients, colleagues and other healthcare providers to provide effective patient care.

CSMLS graciously acknowledges the usage of ethical codes originated by our organizational partners, including: Newfoundland and Labrador College for Medical Laboratory Science, College of Medical Laboratory Technologists of Alberta, Saskatchewan Association of Combined Laboratory and X-Ray Technicians, Ordre professionnel des technologistes médicaux du Québec, American Society for Clinical Laboratory Science, The Danish Association of Biomedical Laboratory Scientists, and Canadian Association of Medical Radiation Technologists. CSMLS reviewed all medical laboratory provincial regulators’ Code of Ethics and therefore, similarities in codes may be identified.

CSMLS commits to reviewing the Code of Ethics bi-annually to ensure its relevance and applicability to an ever-evolving society and profession.

Approved by the CSMLS Board of Directors (September 2015)
Glossary of Terms

**Medical Laboratory Professional**: Includes Medical Laboratory Assistants/Technicians and Medical Laboratory Technologists.

**Patient**: A person receiving or registered to receive medical laboratory service(s) and/or treatment. This includes any specimen collected directly from the person and transported for diagnosis, investigational activities, research, or disease treatment or prevention. Patient specimens include, but are not limited to, excreta, secreta, blood, blood components, tissue, and specimens in transport media.

**Environment**: The objects, conditions and circumstances in one’s surroundings (e.g., geographical location, culture).

**Compassionate**: The ability to recognize suffering in others and engaging in action to alleviate it.

**Error**: An act of commission (doing something wrong) or omission (failing to do the right thing) that leads to an undesirable outcome or significant potential for such an outcome.

**Communicate**: To convey knowledge or information. Communication can be provided in different formats (e.g., speech, text, images and gestures) and presented using various platforms (e.g., in person, telephone or online conversations, in written documents, in social media outlets) as required.

**Conflict of Interest** A conflict of interest occurs when one’s personal or private interests interfere with another’s best interests or one’s own professional responsibilities. The conflict can be actual, perceived or potential. When a conflict of interest influences or appears to influence one’s judgment, the trust relationship can be violated. The interest may be personal, commercial, political, academic or financial. It may or may not lead to undesirable outcomes. A conflict of interest can exist whether or not a medical laboratory professional is actually swayed by the competing interest.

**Fitness to Practice**: All of the qualities and capabilities of an individual relevant to his or her capacity to practice in the profession including, but not limited to, freedom from any cognitive, physical, psychological or emotional condition and dependence on alcohol or drugs that impairs his or her ability to practice.

**Sexual Orientation**: Refers to the sex(es) of those to whom one is sexually and romantically attracted.

**Sex**: A person’s biological status and is typically categorized as male, female, or intersex (i.e., atypical combinations of features that usually distinguish male from female). There are a number of indicators of biological sex, including sex chromosomes, gonads, internal reproductive organs, and external genitalia.

**Gender identity**: Refers to one’s sense of oneself as male, female or transgender. When one’s gender identity and biological sex are not congruent, the individual may identify as transsexual or as another transgender category.

**Health Status**: A holistic concept that is determined by more than the presence or absence of any disease. It is a description and/or measurement of the health of an individual or population at a particular point in time against identifiable standards, usually by reference to health indicators.

**Deportment**: The manner in which a person acts and presents themselves in public, including the workplace.
FAQ:

This section is structured to provide you with questions and answers that were derived by members during the validation process of the Code of Ethics. Each question provides some guidance on how to answer a situation as well as bulleted examples of potential scenarios. Real-life situations will need further consultation, referencing of the ethical codes and clarity of events.

1. **I don’t know which Code of Ethics to follow. CSMLS has one but so does my provincial association or regulator. Which one is the right one?**

   Based on the methodology used to create the CSMLS Code of Ethics (which included a national review of all available medical laboratory specific Code of Ethics at the time), it is unlikely that the national version will contradict a provincial or territory version. However, your employer may defer to one or the other document and determine the minimum requirement from these.

   CSMLS holds the position that the document that should be considered for a specific situation is the one that is strictest in application.

2. **Some of the ethical codes don’t apply to me in my current job. Are they supposed to apply?**

   Each code should be examined in relation to the other ethical codes, Code of Professional Conduct, Standards of Professional Practice, and relevant policy material locally, provincially and nationally. Although the Code of Ethics is meant for all professionals as defined in the grounding principles, it is recognized that some individuals may not practise in a manner that requires all codes be applied to them. However, the golden rule is that all codes should apply to each individual and only with evidence-based reasoning may a code not be applied.

   • As students, Code 1.1 does not apply as they have not completed their certification exam. However, Code 1.2 states that the procedures they are practicing should only be those which they are qualified to do. A student should not complete any procedure or task unsupervised unless qualified in addition to being delegated the procedure or task by the proper authority.

3. **How can I take immediate action for errors I have committed? Is it not my manager’s responsibility to deal with errors? Reference Code 1.4 and 1.5.**

   It is your professional responsibility to report any ethical violation you observe or conduct to your immediate supervisor. While this may prove challenging, by making others aware of the ethical violation, you are doing your due diligence to rectify the situation. Furthermore, while your manager may be ultimately responsible for actions such as policy or standard operating procedure shift, they must first be aware of the violations in order to take next step measures.

   • Violations may be as straightforward as a staff member not washing their hands when leaving the lab area or not cleaning benches properly. In these cases, it may be appropriate to speak to the person directly first and if they comply you do not need to contact a supervisor further. However, if you continue to observe the violation then contacting a supervisor would be appropriate.

   • A violation may be a breach in confidentiality. It is interesting and informative to discuss unique cases to improve one’s knowledge and potentially enhance patient care. However, this must be done under strict guidelines so that confidentiality is observed. It is easy to get caught up in conversation and transform a learning experience into discussion about a patient’s life or situation that does not involve or impact their medical care. One should always attempt to stop inappropriate conversation such as this and if not possible, immediately inform a supervisor.
4. Can I release confidential information if it is not detrimental to the patient? How can I know if information will be detrimental or not? Reference Code 2.3.

While it is understood that information may be communicated between health care professionals, only information that is medically relevant to the care of the patient should be communicated. You must use your professional judgment to determine what is considered medically relevant in each case.

- In teaching hospitals it is understood and written into policy documents that a case may be discussed with your permission amongst other medical personnel (e.g., medical rounds where staff indirectly involved in your case or for educational purposes are invited to attend). Also, interesting cases are often discussed in the laboratory for educational purposes.
- See FAQ #3, bullet point #2

5. Am I leaking confidential information? I wrote something on a social media platform about a patient but I didn’t mention their name. I let a friend know about a new lab instrument we have that the hospital is going to let the media know about next week.

It is important to remember that when information is shared on any type of social media, it is difficult if not impossible to completely remove. Furthermore, social media is in essence a form of public communication which may grossly violate confidentiality through indirect means. Information from one person can be correlated with information from another to allow piecing together a situation that identifies a very private matter or individuals. Professionals must use diligence in remembering that social media is rarely, if ever, a form of private communication. Providing information, in full or in part, about a patient, policy or work situation on social media that has not been approved for release can be considered a violation of confidentiality.

- Mentioning a case in social media (without patient identifiers) is no different than talking in an elevator or cafeteria about the same case, except that it reaches a larger audience. All of these situations are considered inappropriate and have the possibility that the patient could be identified.
- Your organization might be considering a new piece of technology that could help contribute to better patient care and/or diagnostic testing. You may have heard about this potential purpose through hallway discussions, meetings or read in minute notes. Although the concept of enhancing patient care is positive and something you may want to communicate to others, there are other considerations such as fiscal responsibilities, changes in patient flow between organizations, and vendor interests that are also important. It is possible that disseminating such information prior to approval may lead to a violation in confidentiality.


As a professional practitioner, it is your responsibility to be self-aware and to critically reflect on your skills, abilities and any changes that have occurred in your life that may impact your ability to practise. This can be accomplished through external evaluation as well as internal self-reflection. Furthermore, it is your responsibility to identify to your supervisor if you feel a coworker is unfit to practice. They may be unconsciously incompetent and have no malicious intent; however, you are ethically bound to make them aware of their potential inability to practice properly in a respectful manner. Using both self-reflective practice and external formal and informal evaluation is important in recognizing fitness to practice.
• It is possible that someone can develop a mental or physical illness or disorder that inhibits him or her from performing duties that were once considered routine or easy. For example, when a person becomes stressed or experiences burnout from work or home life stress, he/she may find completing the most simple of tasks at work as arduous and/or may begin to cut corners to relieve some stress. We don’t always know that we are not performing at our best and may believe that we will be able to make up for our shortcomings at a later date. However, this may not be the case. If a coworker or supervisor brings the shortcomings to you, it is best to recognize the issue and seek help.

7. How can I contribute to the advancement of my profession by ‘improving the body of knowledge’? Reference Code 3.4.

Improving the body of knowledge can be considered in any number of scenarios (formal, informal to non-formal perspectives). As a professional, you learn not only from your initial training but from your daily experience. While we commonly believe that improving the body of knowledge involves formalized tasks, it can also be as simple as informing your colleagues of a new method, idea, or opportunity. Improving the body of knowledge is about engagement in your own learning and the learning of others.

• Examples might include sharing your gained knowledge from attending a conference or being responsible for a quality improvement project, writing the report and presenting findings to your coworkers. In sharing and possibly having to defend our findings, we are reinforcing our knowledge and understanding.

8. How can I be responsible to the environment? Reference Code 4.1

Your environment is all around you and includes your place of work as well as the external larger global environment. As professionals we are ethically responsible to the public, not just to patients but also to members of a larger community. Consider the notion of waste management and the cost that wastefulness can have on the patient, the public and the environment. Would it be environmentally ethical to dispose of mercury containing materials down the sink? The same concept may be applied to any number of laboratory policies that may be unnecessarily wasteful.

• Over the years, for the sake of health and safety, many organizations use plastic disposable containers for our work. This was not an issue when glassware was being used, washing and sterilizing in the past. It is appropriate to consider our local policies and national guidance on how to dispose of products and consider new alternative methods for this.

9. What does the word ‘inform’ mean? Should I give the results of a test or only how the test is completed? Reference Code 4.4

To inform is to give or impart knowledge of a fact or circumstance; to supply (oneself) with knowledge of a matter or subject; to give evident substance, character, or distinction to someone.

• A patient might want to be informed of what a particular test is for or why it has to occur at specific intervals. It is your professional duty to be prepared to explain the answer or seek the answer in a timely manner from another healthcare profession as required. Patients have the right to accept or refuse testing after being provided with the information as it may be new to the individual or they may consider the information in a new light.
10. Discuss the concept of formal and informal education in relation to the Code. 
Reference Code 3.3

The Organization for Economic Co-operation and Development (OECD) defines formal learning as a type of learning that is intentional, organized, structured and usually arranged by institutions (e.g., college, university course, or CSMLS course). Non-formal learning may or may not be intentional or arranged by an institution, but is usually organized in some way, though lacks granting of formal credit. Workplace based approaches to learning will often fall within this category (e.g. LABCON). In contrast to these, informal learning is never organized, and rather than being guided by a rigid curriculum is often thought of as experiential or spontaneous. The concept of networking for example could be considered an informal approach to learning. Therefore, education approaches may utilize any of these forms of learning incorporating components such as article review, mentoring, networking, or other informal learning which can be documented or demonstrated as being completed.
There are many resolution models for ethical dilemma that are similar in how they identify and solve a particular issue. The following model provides a framework that you can use in an ethically ambiguous situation. You may need to add or remove steps, depending on your needs. Nonetheless, this model provides you a foundation to start questioning any given situation and guides you on the pathway to resolution.

**Ethical Dilemma Resolution Model**

1. **ASSESS**
   - Review evidence
   - Identify the issue
   - Describe the issue

2. **PLAN**
   - Identify courses of action
   - Consider options
   - Evaluate chosen action

3. **DO**
   - Describe course of action
   - Describe how to do it
   - Implement plan
   - Document results

4. **REVIEW**
   - Evaluate result
   - Describe outcome
   - (Start Over)

**ETHICAL PRINCIPLES:**
- Beneficence
- Non-Maleficence
- Autonomy
- Justice
- Veracity
- Fidelity

**PROFESSIONAL CODES OF ETHICS:**
- 4 Principles of Bioethics
- CSMLS Code of Ethics
- CSMLS Code of Professional Conduct
Ethical Dilemma Resolution Model Steps:

**Assess**

1. Identify the issue, be specific and objective
   - Consider breach of lab or organizational policy, procedure
   - Consider professional factors including expectations and ability to perform
   - Gather as many facts as possible
   - Review evidence/documents

2. Describe the problem
   - Ask what specific decisions must be made in order to take action
   - Avoid bias and judgement
   - Is the issue ethical, professional, clinical or legal?
   - How does the action affect others?

3. Determine the ethical issue or dilemma
   - Review the four principles of bioethics: autonomy, beneficence, non-maleficence, justice
   - Review the CSMLS Code of Ethics
   - Review the CSMLS Code of Professional Conduct
   - Identify the most significant ethical issue in the case
   - Ask if there are additional ethical issues that must be addressed

**Plan**

4. Generate potential courses of action
   - Describe as many courses of action as possible
   - Consider all options
   - Consider the potential consequences of all options
   - Enlist colleague(s) to help generate options
   - Evaluate the selected course of action

**Do**

5. Implement the plan
   - Choose the path most likely to be successful
   - Think about what may happen
   - Identify who needs to know
   - Describe how the course of action should be carried out
   - Make the required changes to implement the proposed improvement

6. Document the results
   - Establish a trial period to verify the new process
   - Categorize and date the results

**Review**

7. Evaluate the results
   - Compare the activities before and after the plan for improvement
   - Satisfactory results indicate the plan will be implemented permanently
   - Outcome: Did the plan work? Why or why not? If not, what are the repercussions?
   - Unsatisfactory results indicate more or different changes, or;
   - Issue may need to return to starting point
References within Document

1. Includes Medical Laboratory Assistants/Technicians (MLAs) and Medical Laboratory Technologists (MLTs).
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4. Charles Ellington, MD, JD, SIU School of Medicine: www.fmdrl.org/index.cfm?event=c.getAttachment&riid=4015
5. http://web.mnstate.edu/gracyk/courses/phil%20115/Four_Basic_principles.htm
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11. Adopted from https://www.crnbc.ca/Standards/PracticeStandards/pages/conflictofinterest.aspx
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Further References

Case Scenarios

**Scenario #1: Technologist with a Chronic Illness**

Fred had been working in our lab for over 20 years. He was energetic and a good worker. Over time it was noted that he was slowing down, making mistakes and becoming quiet. Unfortunately, Fred was diagnosed with a chronic neurological disorder. He was on sick leave for months, his condition made worse by stress. When he was ‘urged’ by Human Resources to return to work, he started back 2 days a week completing light duty work which increased to 3 and then 4 days.

It became increasingly obvious that Fred was unable to perform his duties. His concentration was poor and his hands shook. However, he wanted to continue working for as long as possible. He was delegated to a small “special” laboratory doing more simple and manual procedures. His coworkers covered for him. They checked his work, repeated tests, helped him make reagents and at the same time maintained their own workload. When it became obvious that the situation was not improving and they couldn’t cover for him forever, they had to make a painful decision.

**Commentary:**

This is an example of a lab based scenario that has the ‘yuck’ factor, a very difficult situation where ethical decisions need to be made while strong emotions are in play – emotions that would make the required actions difficult.

**Guiding Questions:**

- Should Human Resources have pressured Fred to return to work?
- Does the lab have a job description for staff who are on light duty? Is Fred assigned appropriately?
- Should Fred’s coworkers have covered for him? If yes, for how long?
- Can coworkers perform their own duties efficiently when they are occupied helping Fred?
- Should Fred’s feelings be considered if he couldn’t perform his duties adequately?
- Should supervisors have been made aware from the beginning that Fred was having problems?
- Does this situation have the potential to harm a patient?
- Are there any other ethical issues in this scenario?

**Ethical Codes to Consider:**

1.4 Utilize professional and institutional mechanisms to intervene when witness to unsafe, incompetent or unethical practices.

1.6 Advocate for working environments that support safe, competent and ethical practices.

3.1 Reflect on one’s fitness to practise and expand one’s knowledge, skills, judgments and attitudes through continued professional development.

4.1 Be responsible first to the patient, then to society and the environment for safe and lawful practice and the sustainable use of resources.

4.3 Be responsible for the quality, integrity and reliability of the laboratory services one provides.
Scenario #2: Lab Prank - Brownies
A late afternoon senior lab staff meeting was convening, including the physician in charge of the department. It was customary to bring along coffee, donuts and other treats. On this meeting day it was brownies. As the meeting progressed, the brownies were particularly yummy and everyone helped themselves. The discussion became a little more animated than usual.

No one suspected a thing but there were giggles amongst the staff and years later I was told what had happened. They were “special” brownies, the drug marijuana had been added as an ingredient. The person who had kindly made the brownies had moved on and, of course, any proof was long gone. Just one more of those stories about the “good old days”...

Commentary:
You may think that this no longer happens as policies and procedures in organizations have become much more strict and enforceable over the years. However, there are recent examples in the media that suggest or report on specific occurrences where an illegal substance or alcohol was consumed, knowingly or unknowingly, during work hours in the place of work.

Guiding Questions:
• Explain the health and safety policies for not allowing food and drinks in the lab.
• Was any harm done? Could any real harm have been done?
• Could there have been any repercussions for the physician involved?
• Could patients have been harmed?
• Have laws been breached?
• Who was responsible, the person who did it and/or the staff that obviously knew about it?
• Can anything be accomplished years later by exposing this prank?
• Are there any other ethical issues in this scenario?

Ethical Codes to Consider:
1.4 Utilize professional and institutional mechanisms to intervene when witness to unsafe, incompetent or unethical practices.

4.3 Be responsible for the quality, integrity and reliability of the laboratory services one provides.

5.3 Encourage the trust and confidence of the public through high standards of professional competence, conduct and deportment.
Scenario #3: Off-Hour Breaks

Off-hour staff often work alone and are unable to leave the laboratory for their designated breaks. There is no formal policy to cover this occurrence and the official expectation is that technologists will take their scheduled breaks.

Because it is seldom possible to leave the work area technologists take their breaks in the lab, answering phone calls and running “STATS”. They use a “clean” area to eat their lunch in the laboratory and run back and forth to the work area when needed. There is no hand washing sink or hooks to hang lab coats near the clean area.

Commentary:
This scenario was certainly extremely prevalent before lab accreditation was tightened up in the late 1990s. However, given the health human resource shortage today and decrease in healthcare budgets, shortcuts such as those described in the scenario may still be occurring.

Guiding Questions:
- Why is there not an official policy concerning breaks since it is a routine occurrence?
- Is it actually impossible to take breaks or does the staff choose not to leave the lab?
- Is the designated “clean” area adequate? Can it truly be considered “clean”? Are there any health and safety rules to consider?
- Could the employer receive repercussions for not supplying proper rest periods?
- Do inadequate rest periods affect patient care and/or results?
- Are there any other ethical issues in this scenario?

Ethical Code to Consider:

1.6 Advocate for working environments that support safe, competent and ethical practices.

Scenario #4: Looking Up Results and Adding Tests

All laboratory staff have access to electronic patient results. The temptation is always there to check up on our own results or those of our coworkers, friends, family or patients.

Example 1:
Junior ran his own samples, making them a priority when they really weren’t. Then he slipped in an extra test that he knew the physician would ask for, necessitating another phlebotomy.

Example 2:
Mr. C routinely calls the lab and asks for his INR results. His physician gave the lab permission to give the results to Mr. C.

Example 3:
Doctor S, hospitalized, called the lab and demanded her test results. She also demanded that we add tests to her samples. The technologist called her physician and was told not to add any tests or to give her any results.

Commentary:
These examples provide simple ethical dilemmas that professionals may run into on a fairly regular basis. The frequency of these situations to occur often can lead to a lack of ethical concern given the perceived ‘normalness’. However, such situations should never be considered as such.
Guiding Questions:

Example 1:
- Was it ethical for the technologist to run his own sample?
- Could there be repercussions because the technologist prioritized his own sample?
- Was the technologist justified in adding the test to his own sample?

Example 2:
- Are there circumstances where patients should be given their own results?
- Is there a policy? How does the patient identify himself?
- Does the physician have to give written approval?
- Can you think of a down side to giving patients their results?

Example 3:
- Is there a policy about giving results to physicians who are the patient?
- Should physicians be allowed to add tests to their own samples?
- Can you think of a down side to giving physician patients their results?
- Are there any other ethical issues in this scenario?

Ethical Codes to Consider:

Example 1:
2.3 Abstain from using confidential information to the detriment of a patient, or with direct or indirect intent to benefit oneself or another person.

2.4 Access information relevant only to the professional task being performed.

5.3 Encourage the trust and confidence of the public through high standards of professional competence, conduct and deportment.

Example 2:
1.4 Utilize professional and institutional mechanisms to intervene when witness to unsafe, incompetent or unethical practices.

5.2 Prioritize one’s work to ensure that each patient receives optimum care.

Example 3:
1.4 Utilize professional and institutional mechanisms to intervene when witness to unsafe, incompetent or unethical practices.
Scenario #5: Incident Reporting

Susan and Emily worked together in a special laboratory. Emily was a Technical Coordinator who had worked there for 5 years before she was promoted. She was reassigned to the special lab when the present Coordinator became ill. Emily was asked to transfer into the special laboratory permanently when the Coordinator did not return to work.

Susan thought that the position of Technical Coordinator in the special lab would be posted. When that didn’t happen she became very angry and started complaining about Emily to anyone who would listen. Strange incidents began to occur in the lab.

Incident #1:
One morning the freezer temperature was not acceptable and it was discovered that the plug had been pulled out. Reagents were starting to melt. Frozen patient plasmas and a small number of reagents were lost.

Incident #2:
The standard curves did not work on one of the tests and it was discovered that the standard reagent had been replaced with water.

Incident #3:
Oil was discovered on the high dry lens of the microscope.

Incident Reports were made on all three occasions. No more incidents occurred. Although Susan was suspected of being responsible for the incidents there was no proof. However, since Susan continued to complain about Emily she was deemed to be disruptive in the special lab and was transferred to another section of the laboratory.

Commentary:
There are times when we think someone did or said something but there is no viable proof. This scenario provides an example of how people link two concepts together that may or may not be connected.

Guiding Questions:
• Can harm be done by badmouthing co-workers?
• Can this compromise the reputation of either worker?
• Do you think that Susan tried to sabotage the lab to damage Emily’s reputation?
• Could there have been repercussions for patients?
• Could this affect the lab budget? (damaged lens, compromised reagents)
• Was the supervisor justified in making a lateral move of staff instead of posting the position?
• Should the supervisor have tried to make a case against Susan?
• Are there any other ethical issues in this scenario?

Ethical Codes to Consider:
4.1 Be responsible first to the patient, then to society and the environment for safe and lawful practice and the sustainable use of resources.

4.3 Be responsible for the quality, integrity and reliability of the laboratory services one provides.

5.3 Encourage the trust and confidence of the public through high standards of professional competence, conduct and deportment.
Examples in the Media

Sometimes ethical issues don’t impact us if we feel like they don’t relate to our situation, our profession or place of employment. It is even possible that we don’t think a particular scenario could happen at all. It is important, however, for us to remember that ethically ambiguous situations arise all the time, some big and some small (all persons are considered innocent until proven guilty by the appropriate authority). If we take a glance at the media, we can see essential reminders of this that may be helpful to discuss with other medical laboratory professionals. Ethical codes have been provided to start a discussion and may not be representative of all applicable codes.

1. Stolen personal data for proprietary use

   **Article:**
   

   **Ethical Codes to Consider:**
   
   1.4 Utilize professional and institutional mechanisms to intervene when witness to unsafe, incompetent or unethical practices.
   
   2.2 Preserve and protect the confidentiality of any information, either medical or personal, acquired through professional contact (in person, through collegial conversations, via medical records etc.) to safeguard patients.

2. Theft from a patient

   **Article:**
   

   **Ethical Codes to Consider:**
   
   2.3 Abstain from using confidential information to the detriment of a patient, or with direct or indirect intent to benefit oneself or another person.
   
   4.1 Be responsible first to the patient, then to society and the environment for safe and lawful practice and the sustainable use of resources.
3. Obtaining prescription drugs illegally (impersonating another regulated occupation - pharmacist)

Report:

Ethical Codes to Consider:
1.2 Practise only those procedures for which qualification has been achieved or officially delegated by an appropriate institutional authority, where the member has the current requisite knowledge, skills and judgment to ensure and demonstrate competence.

4.1 Be responsible first to the patient, then to society and the environment for safe and lawful practice and the sustainable use of resources.

4. Allegedly Faked Lab Results

Article:
http://www.nj.com/passaic-county/index.ssf/2016/03/state_police_lab_tech_allegedly_faked_results_in_p.html#incart_river_index

Ethical Codes to Consider:
1.4 Utilize professional and institutional mechanisms to intervene when witness to unsafe, incompetent or unethical practices.

1.5 Assume responsibility for errors one has committed or observed and take immediate action to prevent or minimize associated harm.

4.3 Be responsible for the quality, integrity and reliability of the laboratory services one provides.
Appendix A: Code of Professional Conduct

**Code of Professional Conduct**

Medical laboratory professionals are dedicated to serving the healthcare needs of the public. The welfare of the patient and respect for the dignity of the individual shall be paramount at all times.

- Medical laboratory professionals are dedicated to serving the healthcare needs of the public. The welfare of the patient and respect for the dignity of the individual shall be paramount at all times.
- Medical laboratory professionals work with other health care professionals, to provide effective patient care.
- Medical laboratory professionals shall promote the image and status of their profession by maintaining high standards in their professional practice and through active support of their professional bodies.
- Medical laboratory professionals shall protect the confidentiality of all patient information.
- Medical laboratory professionals shall take responsibility for their professional acts.
- Medical laboratory professionals shall practise within the scope of their professional competence.
- Medical laboratory professionals shall endeavour to maintain and improve their skills and knowledge and keep current with scientific advances. They will uphold academic integrity in all matters of professional certification and continuing education.
- Medical laboratory professionals shall share their knowledge with colleagues and promote learning.
- Medical laboratory professionals shall be aware of the laws and regulations governing medical laboratory technology and shall apply them in the practise of their profession.
- Medical laboratory professionals shall practise safe work procedures at all times to ensure the safety of patients and co-workers and the protection of the environment.

Last Revised: November 2011
Appendix B: Provincial Organizations and Regulatory Bodies

Provincial Organizations

CSMLS works closely with provincial societies and regulatory bodies. The structure and function of the provincial organizations varies from province to province. British Columbia and Prince Edward Island have voluntary societies that represent the profession. In Nova Scotia, Newfoundland & Labrador, New Brunswick and Saskatchewan, the provincial regulatory body and the provincial society are one and the same. In Ontario and Manitoba the regulatory body and professional society are separate organizations. Alberta has only a regulatory body.

The Professional Standards Council (PSC) approves the competency profiles that are used for certification and accreditation of education programs. It is also the policy recommendation body for Certification, Prior Learning Assessment (PLA) and Standards of Practice. The PSC chooses certified subject matter experts from across Canada to form exam panels which are responsible for the development of exams, exam plans and new questions. They also validate exams to ensure they are fair and they assess the skills within the terms of the competency profiles.

Regulatory Bodies

Provincial regulatory bodies (also called regulatory colleges) establish the rules and regulations that determine who may practice as a medical laboratory technologist. Their primary role is to protect the public. CSMLS works in partnership with provincial regulatory bodies but is a completely separate organization.

If you wish to work as an MLT in any of the regulated provinces, you must be registered with the provincial regulatory body. Medical laboratory assistants are not a regulated health profession in Canada at this time.

Provincial Organizations and Regulatory Bodies

- BC Society of Laboratory Science (BCSLS)
- College of Medical Laboratory Technologists of Alberta (CMLTA)
- Saskatchewan Society of Medical Laboratory Technologists (SSMLT)
- Manitoba Association for Medical Laboratory Science (MAMLS)
- College of Medical Laboratory Technologists of Manitoba (CMLTM)
- Ontario Society of Medical Technologists (OSMT)
- College of Medical Laboratory Technologists of Ontario (CMLTO)
- Ordre professionnel des technologistes médicaux du Québec (OPTMQ)
- New Brunswick Society of Medical Laboratory Technologists (NBSMLT)
- Nova Scotia College of Medical Laboratory Technologists (NSCMLT)
- Prince Edward Island Society for Medical Laboratory Science (PEISMLS)
- Newfoundland and Labrador College of Medical Laboratory Science (NLCMLS)
## Appendix C: Other Codes of Ethics

### Canada

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<tr>
<th>Province</th>
<th>Organization</th>
<th>Code of Ethics</th>
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<tr>
<td>Newfoundland and Labrador</td>
<td>Newfoundland and Labrador College for Medical Laboratory Science</td>
<td><a href="http://www.nlcmls.ca/54.code-of-ethics">http://www.nlcmls.ca/54.code-of-ethics</a></td>
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British Columbia, Manitoba, New Brunswick, Nova Scotia, Prince Edward Island, Northwest Territories, Yukon and Nunavut did not have provincial or territorial Code of Ethics at the time the report was created. Please check the relevant websites for up to date information.

### International

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<tr>
<th>International</th>
<th>Organization</th>
<th>Code of Ethics</th>
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