

canadian

JOURNAL

of medical laboratory science

Scientific Feature

Strategies for Reducing
the Ordering of Unnecessary
Laboratory Tests

**Career
Perspective:**
Working with a Recruiter

Board of
Directors Elections

Official publication of:

CSMLS  SCSLM

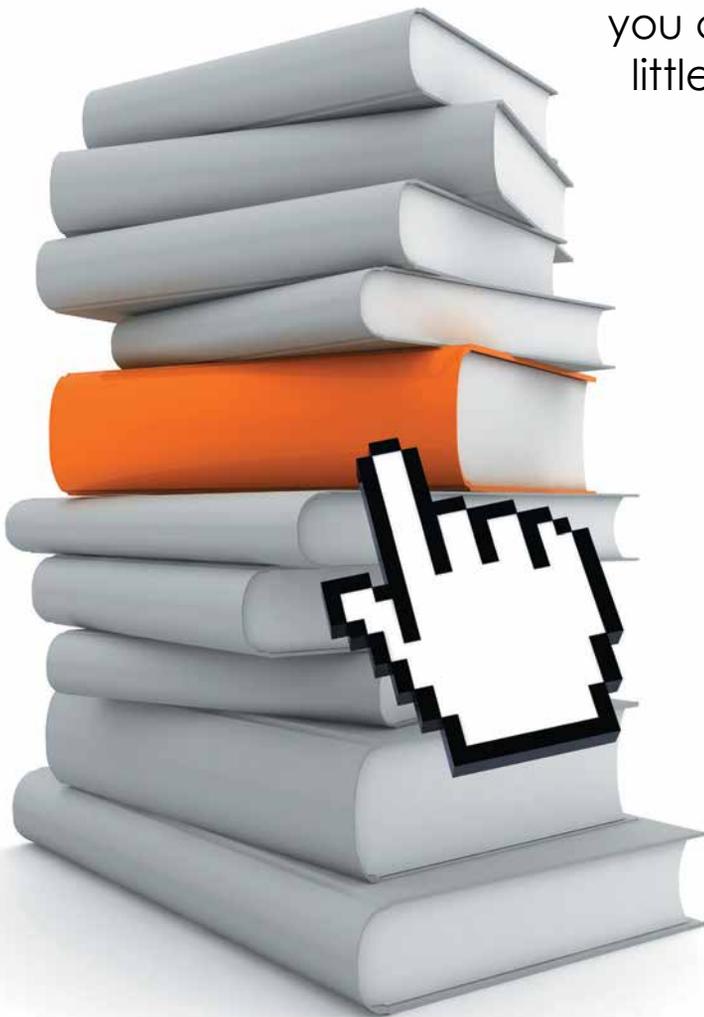
Canadian Society for Medical Laboratory Science
Société canadienne de science de laboratoire médical

PM #40063021

Take advantage of **FREE COURSES** today!

Did you know that as a CSMLS member, you have access to **10 FREE COURSES** each year?

These concise courses help you maintain competence in a specific subject area and you can finish them in as little as a weekend!



Free courses for 2016:

- ABO Discrepancies
- Fixation Practices
- Hepatitis A, B, D and E
- Hypercoagulation – Thrombophilia
- Identification and Description of Atypical (Reactive) and Abnormal Leukocyte and Platelet Morphology
- Laboratory Aspects of Alcoholism
- Lipids
- Miscellaneous Gram Positive Rods
- *Streptococci*
- *Toxoplasma gondii* and Toxoplasmosis

IN FOCUS

4

Message from the
Chief Executive Officer

5

Message from the President

6

The Inbox

8

**New Professionals in
Today's Workforce**

by Laura Zychla

10

**Professional Development
Across the Country**

by Michele Perry

PERSPECTIVES

13

**Transitioning to WHMIS 2015
– Education and Training**

A Safety Perspective

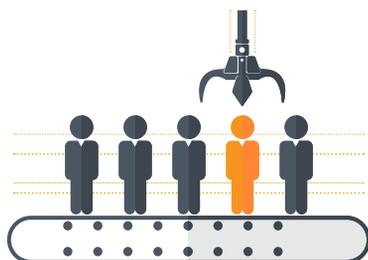
by Gene Shematek

14

Working with a Recruiter

A Career Perspective

by Ashley Rego



16

**Coefficient of Variation
Goals: Managing Your
Quality Control Effectively**

A Quality Perspective

by Pam VanSteele and Rob Kerekes

SCIENTIFIC FEATURE

19

**Strategies for
Reducing the
Ordering of
Unnecessary
Laboratory Tests**

by John Soltys



*Our population is
aging and people
have access to more
information than they
ever have before.*

SOCIETY NEWS

26

CSMLS Board of Directors Election

27

Join us in PEI for LABCON2016

28

Notice to Members: Annual General Meeting
Annual Report

29

Thank You Natalie Campbell

30

2015 Grants, Scholarship
& Award Recipients

32

Newly Certified Members

36

Celebrate National Volunteer Week
April 11 – 15, 2016

37

CSMLS Report on National Certification
Examination Performance

38

National Medical Laboratory Week 2016
April 24-30, 2016

39

CSMLS – The National Voice of Canada's
Medical Laboratory Profession

canadian

JOURNAL

of medical laboratory science

ENGLISH EDITION | SPRING 2016



Christine Nielsen
CHIEF EXECUTIVE OFFICER

Two themes which are frequently discussed in the medical laboratory community are retirements and shortages. For years, many organizations, CSMLS included, have shared some pretty bleak forecasts that indicated we were headed for a health human resource crisis. It was simply a matter of math. The number of new graduates from medical laboratory programs would not be enough to offset the rising retirements we expected to see. This was the effect of a demographic bubble, and subsequent trough, we have in our industry.

Multiple dates were thrown out into the ether, representing the proverbial cliff our numbers were supposed to fall from. Many of these dates came and went and while we

The trouble with math

held our collective breath, the retirements did not happen. The drastic shortages did not materialize overnight as predicted.

So what happened? Was the math wrong? In my opinion, the projections failed to account for multiple factors including, MLTs remaining employed longer due to their nest eggs imploding during the financial crisis, the shifting balance of MLTs and MLAs in the workforce, the effects of technological advancements and automation, and widespread laboratory service amalgamations.

We shouldn't be too quick to celebrate dodging the bullet. While the projections were off, the health human resource crisis is still very real. Don't look down for our feet maybe standing firmly on the precipice of that cliff.

Vacancies in MLT positions are a reality in a number of jurisdictions. If that doesn't ring true to you, you are likely working in a large urban area where the supply of MLTs exceeds the demand, for now. That certainly isn't the case in our rural and remote communities and we are starting to see these vacancies popping up in more and more communities.

In Nova Scotia, the shortages are very real.

MLT workforce projections developed by Nova Scotia Health Authority show that in a worst-case scenario, the province may find itself almost 200 MLTs short of its current level. That's a problem.

Solutions to the health human resource issue are complex. The math hasn't changed in regards to the number of graduates falling short of retirements. The pipeline of new graduates is too small and can't increase without creating more capacity for clinical placements. In addition, there are not enough bridging programs in Canada to enable foreign-trained MLTs to successfully integrate into the workplace in the numbers that would be needed. The CSMLS continues to advocate with government on both these issues.

I expect to see, in time, the role of MLAs expanding. If you are an MLT and grimacing when you read that – stop it. The time has come for MLTs and MLAs to look at each other as trusted peers within the same laboratory community. Our roles are different, as is our areas of expertise, but neither group can work without the other. We need to recognize that and share a mutual respect for the value each group brings.

The laboratory world will see a fair amount of change in the coming years, as it always has before. The simple math of the situation will force that change. We need to find a way to embrace that change (or at least make peace with it) and use it to drive innovation in our practice. At end of the day, the numbers don't lie. ■

*Solutions to the health human resource issue are complex.
The math hasn't changed in regards to the number of graduates
falling short of retirements.*



Chris Hirtle
2016 CSMLS PRESIDENT

Engaging with your Society

In the association world, ‘engagement’ is a common buzzword. We throw it around when we talk about any conversation between the organization and its members; CSMLS included. We want to engage with the people we serve. The Society is keenly focused on the needs of our members. Every item we produce, every message we create is for the benefit of you. The Board and staff at CSMLS discuss engagement when we are developing opportunities for members to engage with us on very public matters. We are looking for active participation, with the federal election campaign being a recent example. We know that CSMLS should be the driver of member engagement, but perhaps we as a membership and a Society are overthinking the “how to”. All we need to do is just talk and become connected.

I’ve come to realize that engagement can mean different things to different people. For some members, something as simple as reading the CJMLS, the eNEWS or sharing a Facebook post is plenty of interaction with your professional society. For others looking for a deeper connection, there are writing or volunteer opportunities available. Whatever your comfort level, we are eager to give you that outlet to engage.

In doing a little research for this message, I found the word engagement in the dictionary and discovered that it also means a promise

or a pledge. I’m intrigued by the principles of this idea. I like the thought of making a promise to our members, a pledge to stay in touch with them over the course of their membership and careers. Our pledge is to continue to create a variety of avenues for members to connect with the Society, the Board and myself.

I am looking forward to many opportunities throughout the year that will make our Board members available to meet you, the members, in your own province or territory, whether it is in person or virtually. I am eager to head to LABCON in June as that is the largest live event the CSMLS hosts and a perfect place for me to meet many of you face-to-face.

Being a national organization, we are challenged with engaging with members across the country. Luckily we live in a virtual world, where communication and outreach are only a keystroke away. Twitter is one small example of this. Although Twitter is very new to me, I see the value of this tool as an easy way to connect with members, other health professionals and the medical lab community. I encourage you to connect with me here @CSMLSPresident. Fair warning, I’m still finding my way in the Twitterverse. I’m learning the lingo and am even looking to host a Twitter Chat in the coming months. Hope you join me! 📺

For some members, something as simple as reading the CJMLS, the eNEWS or sharing a Facebook post is plenty of interaction with your professional society.

The Inbox

The Inbox is meant to provide a public forum for us to address questions, concerns or issues that are raised by members. CSMLS receives feedback through written correspondence, email and through our various social media portals. If you have a question or comment you would like to have addressed in an upcoming issue, talk to us on Facebook, Twitter (@csmls) or through email at editor@csmls.org.

If I let my CSMLS membership lapse do I need to retake my certification exam?

Once you are certified with the CSMLS, you are certified for life. There is no need to retake the exam. If you have taken time off from your membership, we welcome you back at any time. In fact, we don't charge any reinstatement fees so you can pick up your membership again with no penalties.

That being said, if you have been out of work in the field and are in a regulated jurisdiction, you may want to check with your regulatory college to see if you require any skills or knowledge upgrades before heading back into the lab.

If you ever have questions regarding your membership, please contact our office at 1-800-263-8277 or by email at memserv@csmls.org.

CONTACT US

 1-800-263-8277

 memserv@csmls.org

 facebook.com/csmls

When will the new WHMIS 2015 guidelines begin to be tested on the Certification exams?

The pathway from the implementation of new guidelines and regulations to certification testing can be a long one as the legislation has to be first rolled out across all jurisdictions. Exam questions are created using several references (i.e. textbooks), which are also commonly used as teaching resources. For the safety competencies, the CSMLS Laboratory Safety Guidelines is a reference used.

When changes or updates are made in the industry, in this case to WHMIS 2015, these changes are eventually adopted into the reference materials. This process takes some time, as the new procedures or guidelines will need to be adopted in all jurisdictions. Exam questions are only changed once the reference materials have been updated.

So to answer your question, the new WHMIS will first need to be reflected in the CSMLS Laboratory Safety Guidelines before exam questions can be created. Likely, new WHMIS material will be tested in 2018.

Please refer to our Safety Perspective in this issue (page 13) for information about education and training for WHMIS 2015.



canadian
JOURNAL
of medical laboratory science

EDITORIAL AND BUSINESS OFFICE
33 Wellington Street North
Hamilton, ON L8R 1M7
Phone: 905-528-8642 Fax: 905-528-4968
Email: cjmls@csmls.org

Editorial Team Cathy Bouwers
Michael Grant
Christine Nielsen

Scientific Editor Maurice Goulet

Contributors Rob Kerekes
Michele Perry
Ashley Rego
Gene Shematek
John Soltys
Pam VanSteeleandt
Laura Zychla

PUBLISHED BY:

DOVETAIL
COMMUNICATIONS INC.

Dovetail Communications Inc.
30 East Beaver Creek Road, Suite 202,
Richmond Hill, ON Canada L4B 1J2
Phone: 905-886-6640
www.dvetail.com

Executive Editor Theresa Rogers
Art Director Katrina Teimourabadi
Associate Publisher Chris Forbes
Sales Manager Beth Kukkonen
V.P. Production Services Roberta Dick
Production Manager Crystal Himes

Dovetail Communications
Susan A. Browne, President

PUBLISHER'S STATEMENT AND POLICY

The editorial team determines and edits content for the *Canadian Journal of Medical Laboratory Science*. Contributors include staff, partners and CSMLS members. Although CSMLS encourages the sharing of various opinions and perspectives in an effort to promote thoughtful discourse, contributors' views do not necessarily reflect the views of the Society. We reserve the right to edit all submissions for length and clarity. Contents may be reproduced only with permission.

Scientific papers are accepted by the *Canadian Journal of Medical Laboratory Science* on the understanding that they have not been published elsewhere.

The *Journal* is a quarterly publication and is owned and published by the Canadian Society for Medical Laboratory Science (CSMLS). Canada Post Publications Mail Agreement #40063021.

For subscription information contact memserv@csmls.org.

Advertising inquiries can be sent to editor@csmls.org.

RETURN POSTAGE GUARANTEED

ISSN 1207-5833
Printed in Canada

Coming soon from CSMLS...

We're here to support you, every step of your career.

Code of Ethics:

Created to strengthen our professional identity and provide guidance for the challenging situations faced in the workplace for laboratory professionals. The Code will be launched in Summer 2016.

Mentorship Program:

This structured program is designed to pair an experienced professional with an individual less experienced or new to the country to provide guidance, expertise and advice. The pilot of the Mentorship Program will be launched in Spring 2016.

mentor.csmls.org

Mental Health Toolkit:

CSMLS is standing up to mental health issues in the workplace to provide members the tools to identify, monitor and implement change. The toolkit includes links to expert guidance content, surveys, interviews, communication guides and much more! These supports will be launched in Fall 2016.



New Professionals in Today's Workforce

Each year, a fresh round of enthusiastic medical laboratory science students emerge from graduate ceremonies across Canada to embark upon a new career as Medical Laboratory Technologists (MLTs) or Medical Laboratory Assistants (MLAs). The Canadian Society for Medical Laboratory Science (CSMLS) monitors the ability of these graduates to obtain employment after certification in an effort to gauge the supply and demand needs of the profession.

In 2015, 182* new graduates certified in 2014 completed a survey to examine this topic. The results of this survey used MLTs (n=115) and MLAs (n=67) to help expand our understanding of the workforce situation and shone favorable light on their chosen profession.

MLTs were more likely than MLAs to hold only one position at their certification level at the time of the survey. Both groups used relatively the same methods to find their jobs; however, MLAs used a greater variety of methods. Although location was the number one choice that attracted potential employees to their job(s), the professions felt that the chance to gain or develop their skills was a highly important aspect when seeking a position.

**(N= 1256, 14% participation rate; 95% confidence level; 7% margin of error)*

| CATEGORY | MLT | MLA |
|---|---|---|
| Job Attractiveness – Top Reasons (in order of preference) | <ul style="list-style-type: none"> • Location • Chance to gain or develop skills • Type of work or tasks performed on the job | <ul style="list-style-type: none"> • Location • Chance to gain or develop skills • Salary |
| Main Methods to Obtain Job (in order of preference) | 84% used: <ul style="list-style-type: none"> • Answering a job ad on the internet • Approached by an employer directly • Contacting an employer directly | 68% used: <ul style="list-style-type: none"> • Answered job ad on the internet • Contacted an employer directly • Approached by an employer directly |
| Number of Positions Held at Certification Level | 1 Position = 86% 2 Positions = 11% 3 or More = 3% | 1 Position = 68% 2 Positions = 29% 3 or More = 3% |



MLTs were more likely to be employed at their certification level than MLAs at three months and one year post certification. MLAs have greater propensity than MLTs to be working in a non-permanent position and in a part-time or casual employment status. Survey results provided clarity for this in that MLAs choose to be less mobile and had less preference to take a part-time position than MLTs, which may contribute to this difference. MLTs naturally had a greater variety of disciplines or sections of the lab to work in compared to MLAs whose positions mainly focused around phlebotomy with or without other assigned duties.

| CATEGORY | MLT | MLA |
|-----------------------------------|--|---|
| Job at Certification Level | 3 Months = 63% 1 Year = 90% | 3 Months = 52% 1 Year = 69% |
| Discipline/Section of Lab | <ul style="list-style-type: none"> • Core/Rotation • Clinical Microbiology • Multiple Disciplines/Sections of the Lab* • Clinical Chemistry* | <ul style="list-style-type: none"> • Phlebotomy • 'Other' (mainly Phlebotomy with other assigned duties) • Core/Rotation |

*Tied for third place

MLTs (85%) and MLAs (74%) are generally satisfied with their current certification level position as indicated when satisfaction questions were combined to provide an 'overall' score (percent positive as defined by any 'agreement' level choice). It is not surprising that MLTs are more likely to be satisfied with their employment given they are more likely to have full time permanent positions in the location of their choice.

| PERCENT POSITIVE SCORE | MLA | MLT | ALL PARTICIPANTS |
|--|-----|-----|------------------|
| The job meets my expectations. | 82% | 94% | 91% |
| My employer's expectations of me are at the right level. | 88% | 94% | 92% |
| Considering my experience, education and training, I am satisfied with my job. | 67% | 86% | 81% |
| If given the chance, I would choose this career again. | 64% | 85% | 80% |

The Canadian employment market is changing due to the fiscal constraints in the health care sector. As budgets tighten, there is an expectation in all health related professions that there will be an increase in temporary and part time positions, which is evident in our survey results. Nonetheless, MLTs and MLAs continue to push forward to help decrease the associated impact on patient care and are inherently satisfied in their professional choice. 



LAURA ZYCHLA
Researcher



12326
06987 06987
76565 87364
87364 12242
23745

Professional Development Across the Country

The role of the Medical Laboratory Technologist (MLT) is regulated in most provinces within Canada. Each regulated province has its own requirements of professional development for MLTs to maintain their licenses to practise.

We've put together a summary of these requirements in each regulated province. For more information, please refer to the college websites listed below.

ALBERTA

Regulatory College: *College of Medical Laboratory Technologists of Alberta (CMLTA)*

Requirements:

- 900 practice hours over four years
- Continuing Competence Program
 - Annual Learning Plan - based on three to six specific Learning Objectives

Verification of professional development: Learning Plan must be submitted prior to renewal

Website: cmlta.org

SASKATCHEWAN

Regulatory College: *Saskatchewan Society of Medical Laboratory Technologists (SSMLT)*

Requirements:

- 1,200 practice hours over five years
- Continuing Education Program
 - 2 credits over five years (1 credit = 15 hours of education)

Verification of professional development: Audit process

Website: ssmlt.ca

MANITOBA

Regulatory College: *College of Medical Laboratory Technologists of Manitoba (CMLTM)*

Requirements:

- Continuing Competency Program
 - 1,200 practice hours over previous five years
 - 45 hours of continuing education over previous five years

Verification of professional development: Audit process

Website: cmltm.ca

ONTARIO

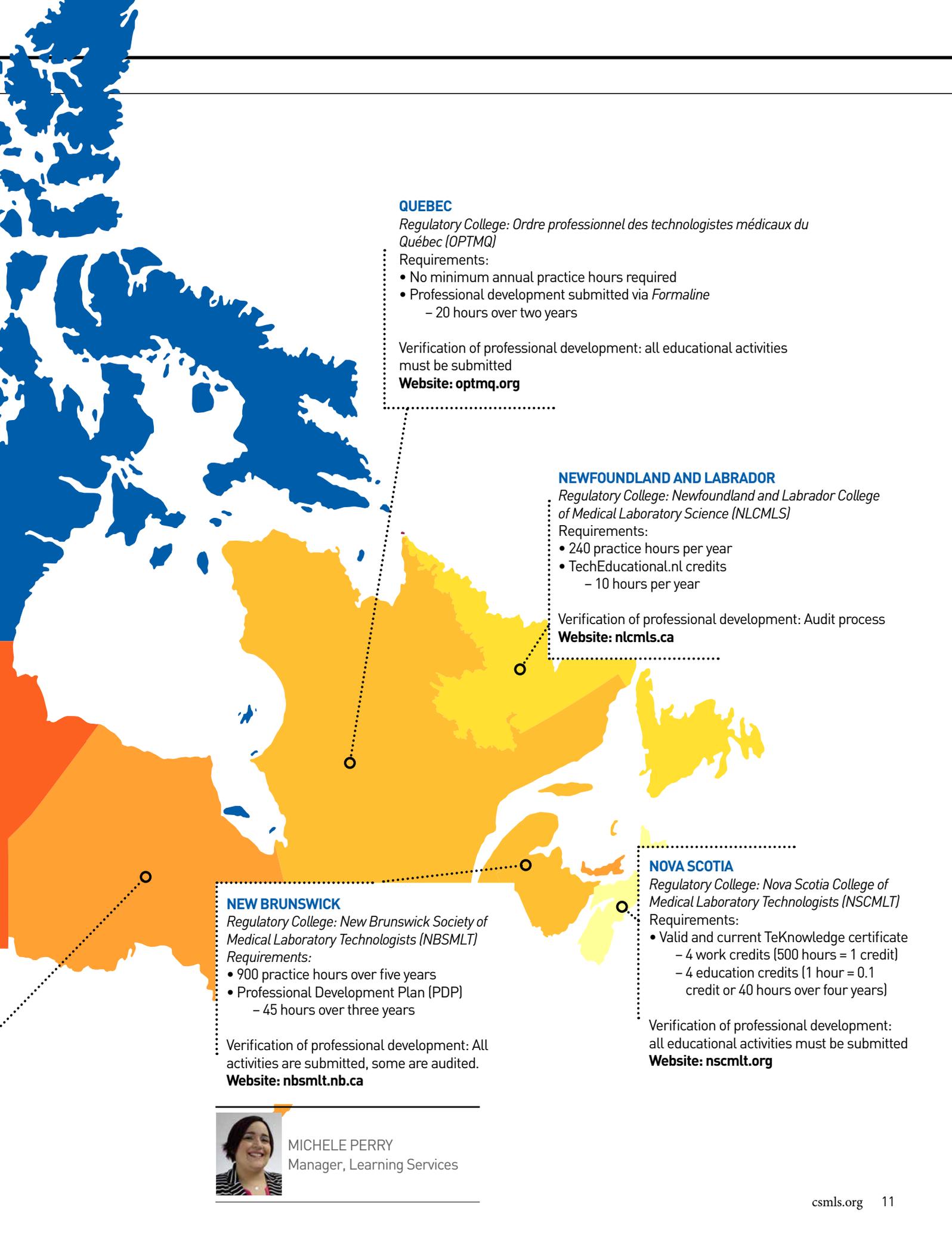
Regulatory College: *College of Medical Laboratory Technologists of Ontario (CMLTO)*

Requirements:

- No minimum annual practice hours required
- Quality Assurance Program
 - 30 hours of activity related to at least two established learning goals

Verification of professional development: Audit process

Website: cmlto.com



QUEBEC

Regulatory College: *Ordre professionnel des technologistes médicaux du Québec (OPTMQ)*

Requirements:

- No minimum annual practice hours required
- Professional development submitted via *Formaline*
 - 20 hours over two years

Verification of professional development: all educational activities must be submitted

Website: optmq.org

NEWFOUNDLAND AND LABRADOR

Regulatory College: *Newfoundland and Labrador College of Medical Laboratory Science (NLCMLS)*

Requirements:

- 240 practice hours per year
- TechEducational.nl credits
 - 10 hours per year

Verification of professional development: Audit process

Website: nlcmls.ca

NEW BRUNSWICK

Regulatory College: *New Brunswick Society of Medical Laboratory Technologists (NBSMLT)*

Requirements:

- 900 practice hours over five years
- Professional Development Plan (PDP)
 - 45 hours over three years

Verification of professional development: All activities are submitted, some are audited.

Website: nbsmlt.nb.ca

NOVA SCOTIA

Regulatory College: *Nova Scotia College of Medical Laboratory Technologists (NSCMLT)*

Requirements:

- Valid and current TeKnowledge certificate
 - 4 work credits (500 hours = 1 credit)
 - 4 education credits (1 hour = 0.1 credit or 40 hours over four years)

Verification of professional development: all educational activities must be submitted

Website: nscmlt.org



MICHELE PERRY
Manager, Learning Services

PERSPECTIVES

The Perspectives section of the *Canadian Journal of Medical Laboratory Science (CJMLS)* seeks to provide thoughts, insights, and opinions from individuals with different points of views. We hope that as this section evolves, it allows us to present a broader array of topics that reflect the varied careers and experiences of our members. If you are interested in contributing to the Perspectives section, email us at editor@csmls.org.



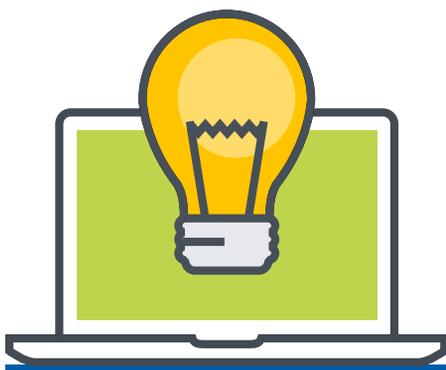
Transitioning to WHMIS 2015 – Education and Training

Training has always been an important component of WHMIS programs. Employers are required to ensure workers who may be exposed to hazardous products in the workplace are aware of the hazards and know what controls to use to reduce the risk of exposure. The education and training requirements related to WHMIS (both 1988 and 2015) are part of the occupational health and safety legislation of the provinces, territories and federal government (for those industries federally regulated). Readers are advised to consult applicable legislation. Because of the transitional period, employers will be required to train workers on all components of both WHMIS 1988 and WHMIS 2015. Fortunately, the basic principles and accountabilities are similar.

It is important to recognize the need for both general education (covering more generic information about hazards and WHMIS program components) as well as site-specific training relating to the handling of specific products and the information presented on Safety Data Sheets (SDS) and labels for products used in the area.

Training should be provided for anyone who may come into contact with the hazardous products, including those involved in their use, storage, and disposal, as well as those responding to emergencies. General education may include a discussion about where SDS can be found, the contents of labels and SDS, and basic emergency response protocols (e.g. first aid, emergency wash stations, spill response kits, etc.). Site and product-specific training should cover more details about the hazards posed and all precautions that should be taken when working with a hazardous product. Many workers have relied on reading labels for specific hazard information; new labels may not have some of the terms laboratory workers are accustomed to.

There is no “blanket” requirement for an annual WHMIS refresher course – this will be specified in applicable provincial, territorial or federal regulations. Laboratories are advised to ensure that all new workers are trained in the details of both WHMIS 1988 and WHMIS 2015 during the transition period. All workers should be introduced to the details of WHMIS 2015 and competency should be evaluated. Laboratories may be targeted by companies providing WHMIS training services. Each organization should determine the type and mode of training that will be most effective for its workers. The National WHMIS 2015 Portal website is an excellent place to start as it provides extensive resources to assist in the setting up of WHMIS programs. This site can be found at www.whmis.org. 



For a complete copy of all four segments of “Transitioning to WHMIS 2015”, please visit the CSMLS website under The Learning Centre



GENE SHEMATEK
Occupational Health and Safety
Consultant to CSMLS

A CAREER PERSPECTIVE

Working with a Recruiter

After endless hours of searching for a job online, you finally find one that interests you. You perfect your resume, write up a cover letter, upload all of the required documents and hit 'Submit'. You're now left pondering, 'where did my resume just go and who's looking at it?' If you're applying for a job online, there's a pretty good chance a recruiter is looking at it. To save time, employers are relying more and more on the expertise of recruiters to help fill vacant positions.

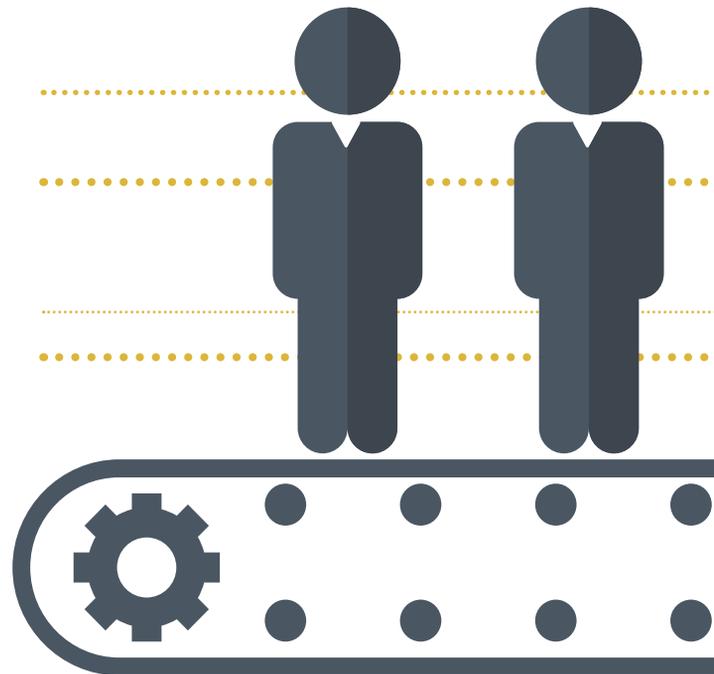
But who are they and what role do they play in the hiring process? Recruiters are specialists who work on behalf of organizations to help them identify qualified individuals that have both the required skills and the right attitude for the job. A recruiter will often give helpful advice, help coach candidates for the interview with the employer and provide feedback afterwards. Stephanie Brooks, Manager Research & Recruitment from MCTG & Associates, an executive search firm, shares her insight on the process of working with a recruiter.

Resume Review

Once a recruiter receives your resume, it is screened for skills and qualifications that are best related to the job description. Most people believe they need to include a cover letter with their resume, but that isn't necessarily the case. The resume is your own personal selling tool that should be easy to scan and should cover the fundamentals. Unless stated by the employer or in the job description, a cover letter isn't always required. A strong resume that highlights related skills and qualifications combined with your education and relevant work experience is what will get you to the next step.

Phone Interview

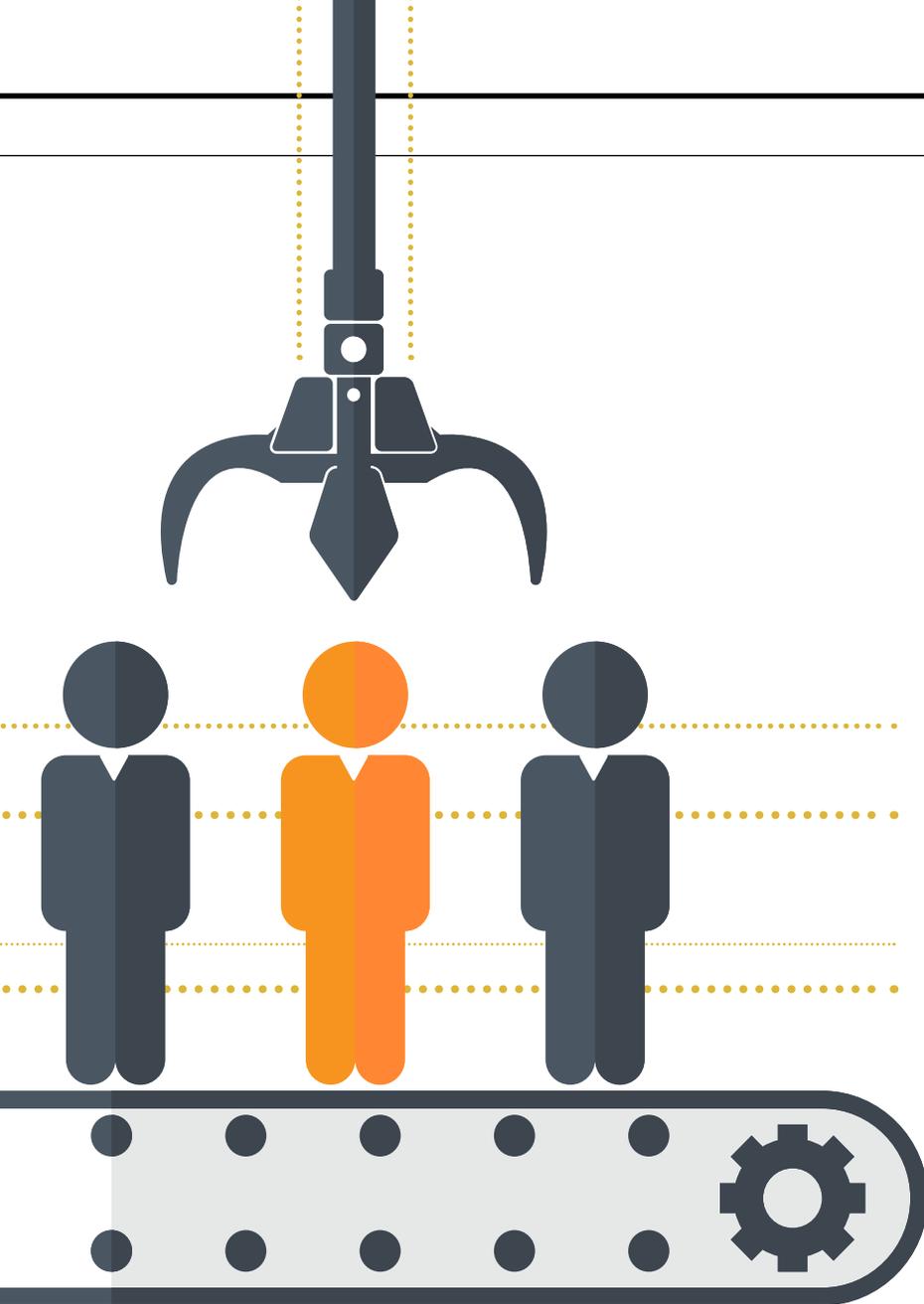
If you're identified as a good match for the position, the recruiter may call you for a phone interview. The phone interview gives you the opportunity to tell your story. During the discussion, focus on talking about your education, your professional experience working in the field and how you see yourself being the best fit for the position. If you meet the requirements, your name will then be put forward as a recommendation and you'll be brought in to meet one-on-one.



Meeting with the Recruiter

This portion of the process will help prepare you before meeting with the employer. It is important to treat this exactly the same way as you would an interview with the employer. At the meeting, you'll gather a better understanding of the organization, receive background information about the employer and learn a little bit about the person that will ultimately interview you. A recruiter will typically guide you through the interview process and provide you with advice and feedback to prepare you for the interview.

Recruiters are specialists who work on behalf of organizations to help them identify qualified individuals that have both the required skills and the right attitude for the job.



The Follow-up

Once you've had your interview with the employer, it's best to follow up with the recruiter. This is your opportunity to debrief about the interview – what went well and what didn't – from your perspective. A recruiter often takes this opportunity to provide you with feedback from the employer and what the next steps will be.

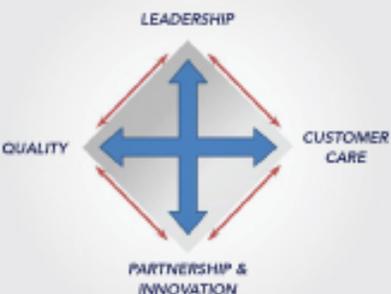
For job seekers, a recruiting agency can give valuable resources when looking for work. It is a service that offers a variety of tools and can open the doors to positions that may not be easy to find. A good recruitment agency can make your job search much easier and will provide you with good advice, while maximizing your chances of finding work. 📌



ASHLEY REGO
Marketing and Communications
Associate
CSMLS



In-Common Laboratories



In-Common Laboratories (ICL) was established in 1967 by the Laboratory and Medical Directors at the Toronto General Hospital, Mount Sinai Hospital, and the Ottawa Civic Hospital. The concept, conceived by the Lab and Med Directors was to have the hospital labs working together or “in-common” to deliver shared access to resources, rather than each hospital performing all medical lab tests in-house. Today the organization is a not-for-profit, Canadian corporation governed by a skills-based Board of Directors.

ICL is mission-focused not profit-driven.

Hospital labs are our partners, clients, and trusted colleagues. ICL's commitment is to the provision of a quality-assured, end-to-end, diagnostic test referral service, including out-of-country samples. Our value rests in the single-sourcing of any lab test at a single price with no hidden costs. ICL provides a fully managed logistics service and connectivity solutions to enhance patient care while providing our clients access to the best clinical, medical, and technical expertise.

www.ICLabs.ca

A QUALITY PERSPECTIVE

Coefficient of Variation Goals: Managing Your Quality Control Effectively

Most laboratories manage quality control using Levey-Jennings charts and Westgard rules. Establishing an appropriate coefficient of variation (CV) for an analyte quality control (QC) graph is paramount for error detection. Setting a wide CV will not effectively identify potential issues; while a CV that is too narrow will result in wasted time and supplies troubleshooting a potential non-issue. There are recommended proficiency testing targets and CV goals published by international bodies including Clinical Laboratory Improvement Amendments (CLIA), Guidelines of the German Federal Medical Council (RiliBÄK) and Institute for Quality Management in Healthcare (IQMH). However, it may be necessary to review in-house assay performance when establishing performance parameters.

During an internal review, many of our medical laboratory technologists (MLTs) commented on the quality control review process indicating that there were too many repeats, too many calibrations, quality control never fails, standard deviations (SDs) are too large and a sense of overall frustration with the whole process.

The InterHospital Laboratory Partnership (IHLP) consists of 12 rural hospital laboratories in southwestern Ontario. Shortly after implementing a standardized chemistry platform, our group endeavoured to establish realistic and effective CV expectations to improve our QC program. The Technical Committee, as well as the Laboratory Director, recognized the importance of standardization of a QC program amongst all partner labs. This would effectively detect analytical issues yet be achievable to reduce unnecessary troubleshooting. One challenge we encountered was convincing the Technical Committee to supplement the IQMH published CV goals guidance documents, which were traditionally used exclusively.

Our rationale for this project was to develop local CVs that were vendor and QC level specific. We were challenged to meet IQMH published values for some analytes at specific QC levels. In order to effectively and practically assess in-house and peer group analyzer performance, our labs embarked on this venture.

Our project included:

1. Confirming alignment with Laboratory Accreditation requirements.
2. Ensuring reagent and calibration stability issues were addressed.





During an internal review, many of our medical laboratory technologists (MLTs) commented on the quality control review process indicating that there were too many repeats, too many calibrations, quality control never fails, standard deviations (SDs) too large and a sense of overall frustration with the whole process.

3. Reviewing published IQMH Acceptable Performance Limits¹.
4. Reviewing vendor-specific package insert claims.
5. Reviewing global peer QC data for the specific QC lot and vendor.
6. Reviewing QC data comprised of CV values over 12 months of data, across the 12 labs, all of one single lot of QC and over multiple lots of reagent and calibrator.
7. Reviewing QC data by level, scrutinizing attainable CV goals based on clinical significance and realistic outcomes.

The data was collated and presented at a regional meeting of Technical Directors. Comparison of each analyte was discussed. IHLP data, IQMH performance limits and the clinical significance of the quality control level were elements that were considered. Consensus was attained to adopt IHLP-specific chemistry CV values across the system. Since implementation, it has been noted there is:

- less angst around QC (staff satisfaction)
- increased recognition of early opportunities to identify assay deficiencies and/or troubleshooting requirements (increased quality)
- decreased troubleshooting of false issues (increased efficiency)
- increased confidence in the accuracy of reported results (decreased risk)

This project has since led to additional CV reviews to consider establishing IHLP-specific CV goals for blood gas and hematology. ■

REFERENCES:

- ▶ 'QMP-LS Review – External Quality Assessment Allowable Performance Limits – Chemistry and Hematology. Revision date: 2014-01-30.

*Note that since this project the reference document has been updated:

- ▶ IQMH Review – Proficiency Testing Precision Goals and Allowable Performance Limits for Chemistry and Hematology. Revision date: 2015-03-25.

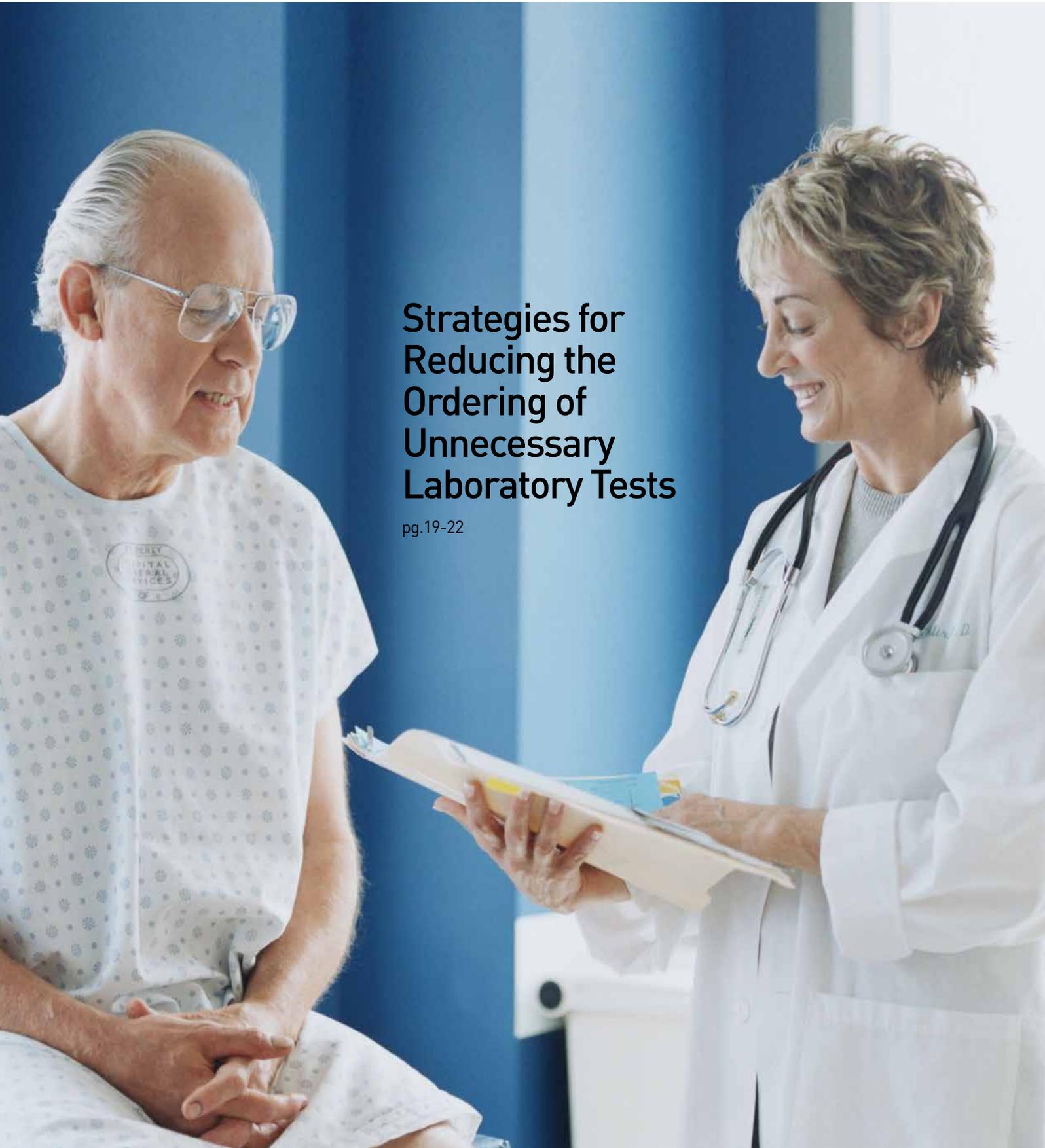


PAM VANSTEEELANDT, MLT, BSc, MBA
Quality Assurance Manager
InterHospital Laboratory Partnership,
Stratford, ON
Pamela.vansteelandt@hpha.ca



ROB KEREKES, MLT, ART(c)
Manager, Laboratory and
Cardiorespiratory Services
Alexandra Marine & General Hospital,
Goderich, ON
Robert.kerekes@damgh.ca

SCIENTIFIC SECTION



Strategies for Reducing the Ordering of Unnecessary Laboratory Tests

pg.19-22

Strategies for Reducing the Ordering of Unnecessary Laboratory Tests

JOHN SOLTYS

BSc, MLT, MBA

Cambridge Memorial Hospital

Health care costs are on the rise, particularly with respect to laboratory testing. Our population is aging and people have access to more information than they ever have before. Both these factors will contribute to increased demands for laboratory tests as older people tend to require more care and the better informed patients will put more pressure on their doctors to order tests that may not necessarily be needed.

Automation and the centralization of laboratory services have produced significant savings for laboratory operators. It may still be possible to squeeze more cost savings from these strategies, however there is a limit to how low per unit costs of laboratory tests can go. Even as unit costs of laboratory tests decline, an increase in test volumes can quickly eliminate any savings realized. Fortunately, there are many strategies that have proven to be effective at reducing costs by persuading physicians to order fewer tests when they are not clinically indicated. Interventions that reduce the volume of laboratory tests performed can benefit patients through reduced phlebotomy and allow for the redeployment of laboratory and physician resources to other areas¹. This article describes interventions that have proven to be successful at curbing laboratory utilization. The strategies presented in this article have been sorted using an adaptation of the Precede Proceed framework originally developed by Green et al and modified by Solomon². This framework classifies interventions as predisposing, enabling or reinforcing.

Predisposing interventions aim to influence doctors by providing them with information before test ordering occurs.

EXAMPLES

1. At the time of order entry a message gives doctors information about the cost of laboratory tests³⁻⁵ or ordering guidelines for the test^{6,7}.
2. Doctors are provided with educational materials such as pamphlets about appropriate use of tests⁸ or costs of tests^{3,8,9}.
3. Mentorship programs for junior doctors¹⁰.
4. Provide doctors with a quiz on test ordering, mark and return the tests¹¹.
5. Educate doctors with lectures about proper test use or clinical guidelines for ordering a test^{7,12-15}.

ADVANTAGES

Predisposing interventions can be tailored to get specific information across to doctors; they are highly visible and therefore encourage doctors to think about their test ordering behaviour. There is also evidence to suggest that using such an intervention on doctors early in their careers can cause them to be more conscientious in their test ordering in the future¹⁶.

DISADVANTAGES

Few studies performed long-term observation of test ordering

patterns. Studies that did perform long term observations found that reductions in test ordering were lost over time unless fresh interventions were mounted^{1,17,18}. Predisposing strategies are also fairly costly since education must be developed and administered actively to physicians and the physicians must take time to attend lectures and absorb the information they are given. For studies that rely on giving doctors information, there is a risk that information overload will cause interventions to be less successful⁶, likewise doctors may get frustrated with constant information bombardment¹⁹.

Enabling factors are skills, resources, or structural barriers that facilitate or prevent behaviour². Interventions that utilize enabling strategies usually make it more difficult for doctors to order tests.

EXAMPLES

1. Reduce the number of tests listed on requisitions or restructure requisitions to promote favourable test ordering¹⁹⁻²⁵.
2. Replace test panels with the individual component tests^{10,16,19,23,24}.
3. Limit ability to re-order tests within a specific time frame^{1,6,13,17,19,26,27}.
4. Eliminate standing orders^{14,16}.
5. Limit how far in advance doctors are able to order tests¹⁹.
6. Limit the test menu available to certain kinds of doctors¹³.
7. Require doctors to get special permission for ordering tests deemed to be over utilized^{2,16,25,28}.
8. Allow doctors to only order tests in a particular sequence based on previous test results²⁴.
9. Require doctors to sign a waiver declaring that all ordered tests are medically necessary²⁴.

ADVANTAGES

1. Relatively inexpensive to implement and easy to sustain²⁶.
2. Effective at reducing the use of tests that aren't truly needed. Bailey et al illustrated this, in their study. Rheumatoid Factor (RF), C-Reactive Protein (CRP) and Erythrocyte Sedimentation Rate (ESR) were removed from requisitions. CRP and ESR ordering rates declined significantly while orders for RF remained consistent. This suggests that doctors have a firm understanding of when a RF test should be ordered, and that there is some ambiguity about when CRP, and ESR tests are appropriate²³.
3. Effective in settings with high staff turnover²⁵.
4. Difficult for individuals to evade or defy.

DISADVANTAGES

1. Only decrease test ordering modestly²⁶.
2. Efficacy is mostly limited to esoteric tests. Common tests (which make up the bulk of laboratory expenses) are difficult to target with an enabling approach. For example CBCs and electrolytes are very common high volume tests. There are many instances where these tests are not indicated, however applying enabling interventions, such as removing tests from a requisition or unbundling test panels, would likely slow patient care with little impact on ordering frequency^{3,25}.
3. More likely to face resistance from clinical areas.
4. Too many restrictions on test ordering can compromise patient care, Jassens et al mentioned that blocking the ability to re-order tests made it difficult for doctors to do so when it was clinically indicated²⁶. Jassens et al also stated that there were times when ordering blood work in advance was practical (for example with outpatient clinics). However, a Laboratory Information System that automatically cancelled orders placed in advance introduced complications. When patients came for their appointments, doctors often discovered that the tests they had ordered were cancelled. This forced doctors to order new blood work and reschedule appointments resulting in waste and compromised patient care²⁶.

“Reinforcing factors reward a specific behaviour through feedback.”²

EXAMPLES

1. Provide doctors with feedback on their test ordering behaviour (e.g. issue report cards^{7,10,14,18,28}), hold meetings to discuss metrics^{9-11,14,28} and set up computer pop up messages when tests are ordered too often²⁷.
2. Audit doctors on their test orders and debrief them on audit results²⁸.
3. Compare test ordering patterns of doctors to their peers¹⁸.
4. Provide doctors with monetary incentives for ordering fewer tests¹⁴.

DISADVANTAGES

1. Reinforcing interventions can be labour intensive as individual doctors must be constantly monitored and provided with feedback.
2. Giving doctors incentives to order fewer laboratory tests (such as competition and money) can potentially lead doctors to avoid

- ordering medically necessary tests.
3. Statistics reflecting test ordering patterns fail to account for the unique circumstances of individual patients and thus may not be meaningful.
 4. Passive feedback on its own (i.e. in the form of a report card) can be ignored and result in negligible changes in ordering behaviour⁷.

MULTI-FACETED APPROACHES

The majority of studies reviewed employed multiple interventions simultaneously. Thomas et al ran four study groups, one control, one using a predisposing strategy, one with a reinforcing strategy and a fourth group using both interventions. The authors observed that using multiple interventions was more effective than only using one strategy, however the effects observed showed an additive effect rather than a synergistic one¹⁸.

MEASURES OF PATIENT WELL-BEING

Many of the studies reviewed reported significant decreases in the number of tests ordered by doctors following an intervention, however few studies attempted to quantify the extent of negative outcomes suffered by patients related to reduced laboratory testing. Studies that did attempt to quantify patient outcomes demonstrated little to no adverse effects for patients^{6,12,16,20}. An exception was Neilson et al, which monitored the frequency of reported critical results before and after interventions and noticed that fewer critical results were reported after intervention suggesting that critical results that might have been caught before the intervention may have been missed after the intervention took place¹⁹. The following approaches were used to quantify patient well-being:

1. Changes in the number of critical results reported¹⁹.
2. Changes in the number of ailments diagnosed^{16,20}.
3. Length of stay, frequency of abnormal test results, blood products used¹².
4. Patient morbidity, mortality and disposition^{6,12}.

NOTES ON COST-CONTAINMENT

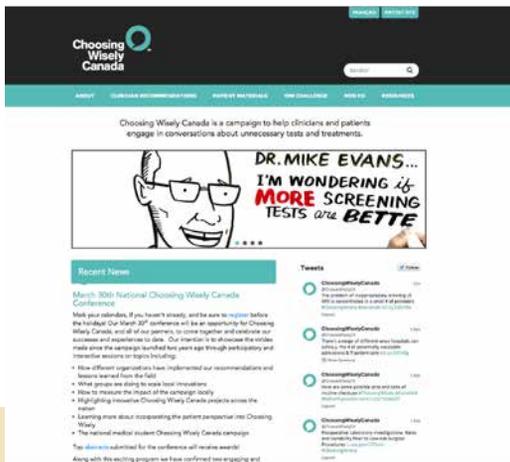
When planning an intervention, one must also consider the cost of human resources. The study by Verstappen et al indicated that when taking into account the wages of physicians and those maintaining an intervention, the costs of the intervention were actually greater than the costs of allowing test ordering to continue at the status quo^{15,25}. On the contrary, papers by Attali et al and Powles et al

observed the opposite, citing negligible costs and significant savings due to their interventions^{16,29}. Performing fewer tests can only cut costs significantly if interventions are sustained over the long term. This is because hospital laboratories are staffed to accommodate long running average test volumes; the purchase of capital equipment is based on the same metrics. Having doctors order fewer tests over a short period will increase the amount of time laboratory personnel and their equipment is idle. A decline in ordered tests must be sustained over a long period of time before managers can consider redeploying laboratory resources without compromising patient care^{3,15}. For these reasons clinical leaders must carefully consider the costs and benefits of an intervention and be willing to sustain their interventions over the long term. ■

REFERENCES

- ▶ ¹May TA, Clancy M, Critchfield J, Ebeling F, Enriquez A, Gallagher C, et al. Reducing unnecessary inpatient laboratory testing in a teaching hospital. *Am J Clin Pathol*. 2006;126(2):200–6.
- ▶ ²Solomon DH, Hashimoto H, Daltroy L, Liang MH. Techniques to improve physicians' use of diagnostic tests: a new conceptual framework. *JAMA*. 1998;280(23):2020–7.
- ▶ ³Feldman LS, Shihab HM, Thiemann D, Yeh H-C, Ardolino M, Mandell S, et al. Impact of providing fee data on laboratory test ordering: a controlled clinical trial. *JAMA Intern Med* [Internet]. 2013;173(10):903–8. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/23588900>
- ▶ ⁴Horn DM, Koplan KE, Senese MD, Orav EJ, Sequist TD. The impact of cost displays on primary care physician laboratory test ordering. *J Gen Intern Med*. 2014;29(5):708–14.
- ▶ ⁵Seguin P, Bleichner J, Grolier J, Guillou Y, Mallédant Y. Effects of price information on test ordering in an intensive care unit. *Intensive Care Med*. 2002;28(3):332–5.
- ▶ ⁶Bridges SA, Papa L, Norris AE, Chase SK. Duplicated laboratory tests: evaluation of a computerized alert intervention abstract. *J Healthc Qual* [Internet]. 2012;36(3):46–53. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/22963261>
- ▶ ⁷Baker R, Falconer Smith J, Lambert PC. Randomised controlled trial of the effectiveness of feedback in improving test ordering in general practice. *Scand J Prim Health Care*. 2003;21(4):219–23.

- ▶⁸Ellemdin S, Rheeder P, Soma P. Providing clinicians with information on laboratory test costs leads to reduction in hospital expenditure. *South African Med J*. 2011;101(10):746–8.
- ▶⁹Stuebing EA, Miner TJ. Surgical vampires and rising health care expenditure: reducing the cost of daily phlebotomy. *Arch Surg*. 2011;146(5):524–7.
- ▶¹⁰Vegting IL, Van Beneden M, Kramer MHH, Thijs A, Kostense PJ, Nanayakkara PWB. How to save costs by reducing unnecessary testing: Lean thinking in clinical practice. *Eur J Intern Med* [Internet]. European Federation of Internal Medicine.; 2012;23(1):70–5. Available from: <http://dx.doi.org/10.1016/j.ejim.2011.07.003>
- ▶¹¹Miyakis S, Karamanof G, Liotos M, Mountokalakis TD. Factors contributing to inappropriate ordering of tests in an academic medical department and the effect of an educational feedback strategy. *Postgrad Med J*. 2006;82(974):823–9.
- ▶¹²Kumwilaisak K, Noto A, Schmidt UH, Beck CI, Crimi C, Lewandrowski K, et al. Effect of laboratory testing guidelines on the utilization of tests and order entries in a surgical intensive care unit. *Crit Care Med*. 2008;36(11):2993–9.
- ▶¹³Calderon-margalit R, Mor-yosef S, Mayer M, Adler B, Shapira SC. An administrative intervention to improve the utilization of laboratory tests within a university hospital. 2005;17(3):243–8.
- ▶¹⁴Vidarthi AR, Hamill T, Green AL, Rosenbluth G, Baron RB. Changing Resident Test Ordering Behavior: A Multilevel Intervention to Decrease Laboratory Utilization at an Academic Medical Center. *Am J Med Qual* [Internet]. 2014; Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24443317>
- ▶¹⁵Verstappen WHJM, Van Merode F, Grimshaw J, Dubois WI, Grol RPTM, Van der Weijden T. Comparing cost effects of two quality strategies to improve test ordering in primary care: A randomized trial. *Int J Qual Heal Care*. 2004;16(5):391–8.
- ▶¹⁶Attali M, Barel Y, Somin M, Beilinson N, Shankman M, Ackerman A, et al. A cost-effective method for reducing the volume of laboratory tests in a university-associated teaching hospital. *Mt Sinai J Med* [Internet]. 2006 Sep 1 [cited 2015 Jul 21];73(5):787–94. Available from: <http://europepmc.org/abstract/med/17008940>
- ▶¹⁷Warren JS. Laboratory test utilization program: structure and impact in a large academic medical center. *Am J Clin Pathol* [Internet]. 2013;139(3):289–97. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/23429364>
- ▶¹⁸Thomas RE, Croal BL, Ramsay C, Eccles M, Grimshaw J. Effect of enhanced feedback and brief educational reminder messages on laboratory test requesting in primary care: a cluster randomised trial. *Lancet* (London, England) [Internet]. 2006 Jun 17 [cited 2015 Jul 21];367(9527):1990–6. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/16782489>
- ▶¹⁹Neilson EG, Johnson KB, Rosenbloom ST, Dupont WD, Talbert D, Giuse DA, et al. The impact of peer management on test-ordering behavior. *Ann Intern Med*. 2004;141(3):196–204+1.
- ▶²⁰Powles LAR, Rolls AE, Lamb BW, Taylor E, Green JSA. Can redesigning a laboratory request form reduce the number of inappropriate PSA requests without compromising clinical outcome. *Br J Med Surg Urol* [Internet]. British Association of Urological Surgeons; 2012;5(2):67–73. Available from: <http://dx.doi.org/10.1016/j.bjmsu.2011.03.004>
- ▶²¹Shalev V, Chodick G, Heymann AD. Format change of a laboratory test order form affects physician behavior. *Int J Med Inform*. 2009;78(10):639–44.
- ▶²²Van Wijk MAM, van der Lei J, Mosseveld M, Bohnen AM, van Bemmel JH. Assessment of Decision Support for Blood Test Ordering in Primary Care. *Arch Intern Med*. 2001;134(4):274–81.
- ▶²³Bailey J, Jennings A, Parapia L. Change of pathology request forms can reduce unwanted requests and tests. *J Clin Pathol*. 2005;58(8):853–5.
- ▶²⁴Emerson JF, Emerson SS. The impact of requisition design on laboratory utilization. *Am J Clin Pathol*. 2001;116(6):879–84.
- ▶²⁵Chu KH, Waghlikar AS, Greenslade JH, O'Dwyer JA, Brown AF. Sustained reductions in emergency department laboratory test orders: impact of a simple intervention. *Postgrad Med J* [Internet]. 2013 Oct [cited 2015 Jul 21];89(1056):566–71. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/23737505>
- ▶²⁶Janssens PMW, Wasser G. Managing laboratory test ordering through test frequency filtering. *Clin Chem Lab Med*. 2013;51(6):1207–15.
- ▶²⁷Sharma A, Salzmann M. The effect of automated test rejection on repeat requesting. *J Clin Pathol* [Internet]. 2007 Aug [cited 2015 Jul 21];60(8):954–5. Available from: <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1994500&tool=pmcentrez&rendertype=abstract>
- ▶²⁸Stuart PJ, Crooks S, Porton M. An interventional program for diagnostic testing in the emergency department. *Med J Aust*. 2002;177(3):131–4.
- ▶²⁹Poley MJ, Edelenbos KI, Mosseveld M, Van Wijk MAM, De Bakker DH, Van Der Lei J, et al. Cost consequences of implementing an electronic decision support system for ordering laboratory tests in primary care: Evidence from a controlled prospective study in the Netherlands. *Clin Chem*. 2007;53(2):213–9.



Physicians and other health care professionals who order medical tests can also refer to a campaign called, "Choosing Wisely". In Canada, this is organized by physicians along with the Canadian Medical Association. The campaign aims to open conversations between clinicians and patients about the ordering of unnecessary tests and treatments.

The website, choosingwisely.ca is double-sided, providing information for both clinicians and patients. It offers resources such as a list of questions for patients to ask regarding their prescribed test and a list of clinical tests commonly over-prescribed.

Did you know?

Reading industry based journals and articles are considered professional development and can help you meet your regulatory college requirements.

Go to learn.csmls.org to answer a short quiz on this article and gain Professional Enhancement Program hours toward your professional development plan.



Friday, June 17th, 2016
Charlottetown, PEI

This full-day program is designed for those who manage others in the lab. Sessions led by industry experts will help you to navigate the potential challenges in your specific work environment.

Sessions include:

- **Optimal Laboratory Utilization**
David Kinniburgh, PhD, DABCC, FCACB
- **Lab Costing: A whole new world**
Alain Thibeault, BMLSc, MLT
- **Quality Management: The Journey Continues**
Dawn Trethewey, MLT
- **Performance Management in a Unionized Setting**
Lesley Dagley, BA, CHRM
- **Calm Assertive Leadership in the Lab**
Laurence J. Stybel, MEd

**LAB
CON
2016**

For more information
or to register today:

labcon.csmls.org

Lab Tests Online® gives laboratory medicine a public face...



and each month helps 2 million patients engage in more productive discussions with healthcare practitioners.

Become a sponsor or partner. Contact labtestsonline@aacc.org.

**AACC thanks
2015
Partners
and
Sponsors.**

SPONSORS

- Roche Diagnostics Corporation
- BD
- Abbott Diagnostics
- Professional Co-op Services, Inc.
- Bio-Rad Laboratories
- Fujirebio Diagnostics, Inc.
- Sysmex America, Inc.
- Randox Laboratories Ltd.
- PAML, LLC

PARTNERS

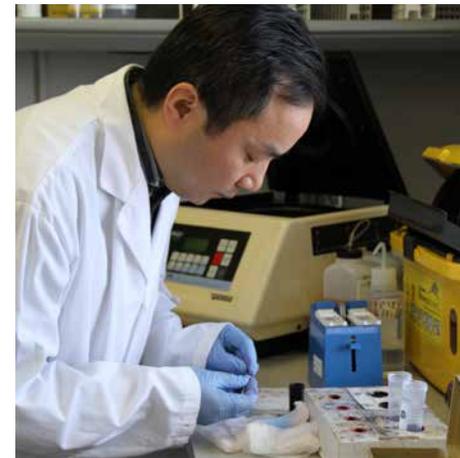
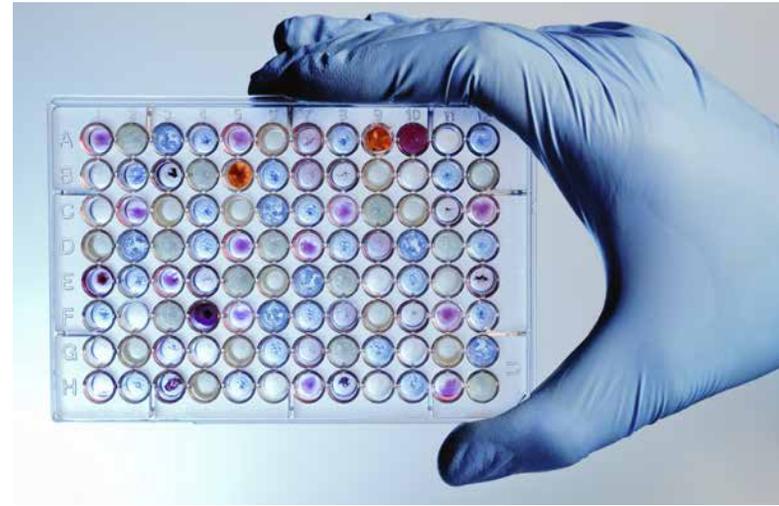
- ASCLS
- ASM
- CLMA
- ASH
- AMP
- ASCP
- CAP
- CSMLS/SCSLM
- CCCC/SCCC
- CLSI
- NACB
- Joint Commission
- APHL
- AABB
- AAFP-PT

Visit labtestsonline.org

Lab Tests Online®
Empower Your Health. Understand Your Tests.

A program of **AACC**

SOCIETY NEWS



CSMLS BOARD OF DIRECTORS ELECTION

In accordance with the CSMLS Bylaws, the Nominating Committee presents the slate of nominations for the Election of Officers commencing in 2017. Nominee biographies are available online at election.csmls.org.

The nominees for the office of Director, Alberta & Northwest Territories



Darcy Gara



Keri Huwald



Joel Rivero



Rhonda Shea



Valentin Villatoro

The nominees for the office of Director, Atlantic



Chrystal Allen



Greg Dobbin



Doris MacLeod



Claire Wentzell

The nominees for the office of Bilingual Director



Sylvie LeBreton



Danielle McLennan



Jennifer Roberts

Voting is now open. All certified CSMLS members in good standing are eligible to vote. CSMLS uses a secure online voting system.

1. Go to election.csmls.org
2. Log in to confirm your eligibility to vote
3. Review all of the candidates, read their bios and cast your vote

Voting closes at 11:59pm (EDT) on **May 9, 2016**.

Voting for your Board of Directors is a privilege of membership. Be sure to cast your vote!

JOIN US IN PEI FOR LABCON2016

Planning for LABCON2016 is well underway and we are eager to welcome delegates for three days of learning and networking. We are also excited to announce an addition to LABCON this year – Managers' Intensive Program.

We've customized a separate, full-day program for people who manage others. The sessions will be led by industry experts who will help you navigate the potential challenges in your specific work environment.

Topics include laboratory costing, quality management, performance management in a unionized environment, and developing your leadership skills. Taking place on Friday, June 17, those attending can also choose to register for two days of LABCON and make it a full weekend of education and career development.

LABCON2016 continues to deliver high calibre education to help you discover new technology and innovative procedures that can be used in your everyday work. Roundtable and panel discussions, along with plenaries and industry showcases will delve deeply into timely topics relevant to today's laboratory industry.

Expand your professional horizons through unique learning opportunities, face-to-face interaction with experts and social time to connect with colleagues and friends from across the country.

LABCON2016 Charlottetown, PE

Pre-Conference Workshops – Thursday, June 16

Managers' Intensive Program – Friday, June 17

LABCON – Friday, June 17 – Sunday, June 19

Of course, no LABCON would be complete without pre-conference workshops. This year's workshops include Ethics, Pediatric Phlebotomy, Pre-Briefing: Preparing for the Unpreparable and Mathematically Optimized Risk Evaluation.

Visit labcon.csmls.org for more information on all the sessions and social events.



NOTICE TO MEMBERS: ANNUAL GENERAL MEETING

This is an invitation to all members to attend the CSMLS Annual General Meeting.

It will be held during LABCON2016, Canada's premier professional development conference for laboratory professionals.

The meeting will take place:

Saturday, June 18, 2016 at 08:00 – 09:00h
Prince Edward Island Convention Centre
4 Queen Street
Charlottetown, PE
Room: Sir John A. MacDonald

The agenda for the AGM will be available on the CSMLS website in May.

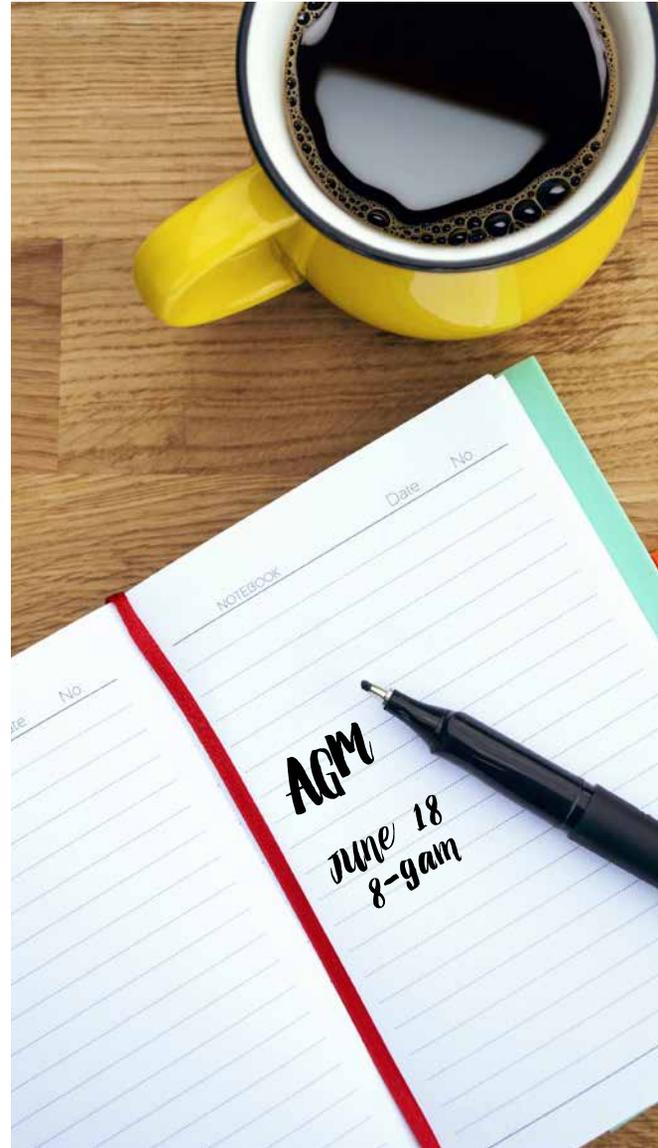
Even if you can't join us at the AGM, you can have your vote count by assigning a proxy vote.

As an eligible CSMLS member, you are entitled to vote at the Annual General Meeting. A proxy is a person who is an eligible voter whom you trust to vote on your behalf. A proxy can represent multiple voting members.

Members can assign their vote using our secure online system at proxy.csmls.org.

Simply log into the site using your CSMLS member ID and password. There, you will be able to assign your vote to an eligible member, or to the Chair of the Nominating Committee.

All voting proxies must be appointed before midnight (EDT) on June 7, 2016.



ANNUAL REPORT

The CSMLS 2015 Annual Report will be available as an online publication through the CSMLS website in April. To request a printed copy of the report, please send an email with your request to info@csmls.org.

Thank You Natalie Campbell

On behalf of CSMLS, we would like to thank Natalie Campbell for her seven years of volunteer service. From 2008 to 2010, Natalie served on the CSMLS Board of Directors as Director Alberta, Northwest Territories and Nunavut. After that term, she felt she was ready to take on a larger commitment to the society and successfully ran for the Presidential chain, serving as CSMLS President in 2014.

We caught up with Natalie as she was wrapping up her final commitments as Past President, to reflect on her work done with the CSMLS over the years. Here are some of her highlights.



A highlight of my presidential year included meeting the Prime Minister and being able to deliver our key messages directly to him.



I was so proud to present the awards at LABCON in my presidential year to two role models in the profession – Linda Crawford and Kate Gagliardi. What an honour to be able to recognize these two very deserving ladies!



I was honoured to carry our flag whether it be the territorial flag at LABCON or the Canadian flag at the IFBLS international conference in Taipei, Taiwan. I am so proud to be a member and to represent my province and country at the national and international conference.



My board experience has taught me so much! I have learned personal leadership skills that I will carry with me throughout my career. I learned many skills like facilitation, how to chair effective meetings (real or virtual), and media relations. I have gained such a sense of gratitude recognizing that all things great come from the efforts of teams and working with this amazing team has been life-changing.

Serving on the CSMLS Board of Directors is a significant commitment and we were pleased to have had Natalie as part of the CSMLS team.

2015 GRANTS, SCHOLARSHIP & AWARD RECIPIENTS

Every year, CSMLS offers Grants, Scholarships and Awards to call congratulations to those who have shown excellence in their profession, to help members continue their professional development and to aid students in their education. CSMLS would like to congratulate all the recipients of Grants, Scholarships and Awards in 2015.

World Medical Laboratory Development Fund

Valerie Pope

Founders' Fund

Gillian Jervis

Wei Li

Eric Liu

E.V. Booth Award

Mélissa Landry

Founders' Fund – International

Ibraheem Kareem

LABCON Leaders of Tomorrow

Tiffany Clouston

Bryce Eremenko

Carlie Knudson

Kim MacNevin

Holly Stevens

Amanda Wang

CSMLS Student Scholarship

Clarissa DeCoste

Danielle Grohn

Siemens Canada Limited Student Scholarship Award

Mary Lee

Natalie Rundle



For information on CSMLS Grants, Scholarships and Awards available in 2016, visit csmls.org under Membership.

TD Insurance
Meloche Monnex

Get more out of your CSMLS membership.
Get preferred insurance rates today!

Home and auto insurance program recommended by



Because you've earned it.

At TD Insurance we believe your efforts should be recognized. That's why, as a Canadian Society for Medical Laboratory Science member, you have access to the TD Insurance Meloche Monnex program, which offers you preferred insurance rates and highly personalized service, along with additional discounts. Request a quote and find out how much you could save!

Take advantage of your group privileges:
You could save **\$415*** or more when you combine your home and auto insurance with us.

HOME | AUTO | TRAVEL

Ask for your quote today at 1-866-269-1371 or visit melochemonnex.com/csmls



The TD Insurance Meloche Monnex program is underwritten by SECURITY NATIONAL INSURANCE COMPANY. It is distributed by Meloche Monnex Insurance and Financial Services Inc. in Quebec, by Meloche Monnex Financial Services Inc. in Ontario, and by TD Insurance Direct Agency Inc. in the rest of Canada. Our address: 50 Place Crémazie, Montreal (Quebec) H2P 1B6.

Due to provincial legislation, our auto and recreational vehicle insurance program is not offered in British Columbia, Manitoba or Saskatchewan.

*Nationally, 90% of all of our clients who belong to a professional or an alumni group (underwritten by SECURITY NATIONAL INSURANCE COMPANY) or an employer group (underwritten by PRIMMUM INSURANCE COMPANY) that have an agreement with us and who insure a home (excluding rentals and condos) and a car on July 31, 2015 saved \$415 when compared to the premiums they would have paid with the same insurer without the preferred insurance rate for groups and the multi-product discount. Savings are not guaranteed and may vary based on the client's profile.

© The TD logo and other TD trade-marks are the property of The Toronto-Dominion Bank.



PROVIDING SOLUTIONS FOR YOUR LABORATORY WORKSPACE



1065 du Pacifique St, Suite 403, Sherbrooke QC Canada J1H 2G3
Tel.: 450 678-5468 • 819 542-1152 • Fax: 450 445-9837
info@ibiom.com • www.ibiom-lab.com

DESIGNED &
ENGINEERED
IN CANADA

Newly **2015** Certified Members

CSMLS would like to congratulate and welcome the following new members on their recent certification. These members successfully passed their certification exam in 2015.

MLT General

Elimar G. Acosta
 Adetokunbo O. Adeyemo
 Ysianel F. Aguinaldo
 Zahra Ahmad
 Bilal Ahmed
 Caitlin M.E. Aitchison
 Nour Alhomsy
 Jenie Lyn Alsisto
 Joubert André
 Elena Arhip
 Amal S. Azer
 Nina M. Baecker
 Courtney K. Barnes
 Ryan L. Barrett
 Amul Basnet
 Genevieve A. Bates
 Katherine J. Baynham
 Kristina M. Beaton
 Mélina Bédard
 John Bellusci
 Alexa Bertolini
 Lynn M. Betts
 Jillian Z. Bezanson
 Rahulkumar D. Bhavsar
 Elaine V. Block
 Jeffrey N. Bolstad
 Allison N. Bourne
 Stephanie A. Bourque
 Stéphanie R. Bourque

Alicia A.M. Bovaird
 Menpreet K. Braich
 Jasmeen Brar
 Leah E. Breen
 Sara M. Broderick
 Beth M. Brophy
 Eric B. Brotherton
 Robyn Brown
 Timothy C. Brown
 Kayla M. Burke
 Vanessa D. Burton
 Nicole M. Butler
 Besmira Cako
 Joshuwa B. Cecile
 Jason Chan
 Shun Kai (Samuel) S. Chan
 Ka Man Lily Chan
 Dingwu Chang
 Tianran Che
 Emily L. Chen
 Jeff C.F. Cheung
 Maysoon A. Choufi
 Karen Chow
 Stella Chu
 Jennifer Ciccarelli-Guevara
 Tria D. Clare
 Ariel T. Clarke
 Natacha Clément
 Kimberly L. Cloutier
 Alyssa G. Cole
 Brittany S. Collins
 Rachel D. Colpitts

John Cruz
 Allison M. Cubberley
 Thomas A. Cumming
 Duaa Dabbour
 Carlea L. Daly
 Kim H. Dang
 Janel E. Daniel
 Alice Celeste L. Dao
 Phat Dieng
 Dianna Diep
 Sarah E. Doull
 Casey Dubé
 Mario J. Dumouchel
 Laura E. Dunn
 Paula M. Edwards
 Clark Elliott
 Stephanie Elvy
 Bryce S. Eremenko
 Noor Husna Faizullah
 Roberta A. Farrell
 Ryan J. Finnan
 Jill C. Finner
 Carly Fletcher
 Joyce T. Forson
 Carola Freudenthal
 Jenna R. Fullerton
 Mélanie Gagné
 Véronique I. Gaudet
 Abdihakin M Gaz
 Harmeet K. Ghuman
 Michelle P. Gibbons
 Erin I. Gillis
 Mahala E. Gillis
 Mitchell P. Goldsack
 Edlyn M. Gomez
 Amanda D. Goudie
 Nicholas T. Grabowski
 Lisa A. Grant
 Yasmin B. Habib
 Savannah M. Hagen
 John Lee Halliger-Graham
 Kyungseh Ham
 Kara A. Hancock
 Brittany D. Hanley
 Kyla M. Hansman
 Natalie D. Harris
 Laith Hatahet
 Hannah J. Hawkes
 Zhong Ping He
 Khai (Francis) Q. Ho
 Olga Hofmann

Natalie I. Howes
 Britney H. Hrywkiw
 Sisi Huang
 Mark K. Hubbard
 Tyler A. Hutchison
 Emily A. Ihasz
 Tuhina Imam
 Meehra Indran
 Nelson C. Jackman
 Monica I. Jaillet
 Nick M. Janes
 William J. Janzen
 Richa A. Jassal
 Felicia L.M. Jiang
 Farida John
 David N. Jones
 Heidi N. Kair
 Jason A. Keddy
 Christina S. Keller
 Julie M. Kelly
 Melissa J. Ketch
 Afsheen G. Khawaja
 Sonie Khyibani
 Rumman K. Khondker
 Taewoo Kim
 Nadine M. Kinsella
 Amiah R. Klein
 Carlie M. Knudson
 Anita Ko
 Anna V. Kovaleva
 Jon Kreviazuk
 Sara Kwan
 Hiral P. Lad
 Angela Lam
 Jessica D. Leach
 Mark R. Lelis
 Ashley L. Leonardis
 Ka Ming Danielle Leung
 Xiaoquan Li
 Jun Li
 Leah Liew
 Jae Kyun Lim
 Maricris B. Limos
 Wade C. Linklater
 Sheila E.A. Little
 Joanna Liu
 Jeremy T. Luebke
 Diana Luong
 Brenda Ly
 Serena N.H. Ly
 Annette V. MacLachlan

Katherine V. MacLeod
 Tom W.D. MacRae
 Annie Malo-Comtois
 Wendy E. Martin
 Amanda L. Matheson
 Micayla N. Matthews
 Sharon A. Mayos
 Lulinda Mbotwa
 Katie V. McCormack
 Jaime E. McDonald
 Janae H. McIntyre
 Jessica McMillan
 Derek E. Medeiros
 Krista J. Melbourne
 Richard A. Merritt
 Leonie Miller
 Morgan E. Millman
 Ana Mirzadeh Ahari
 Nimishababen V Mistry
 Jessica E. Moloney
 Jessica E. Moore
 Jennifer J. Morin
 Lorraine A. Moscall
 Kyla C. Munroe
 Justin A. Myles
 Evan K. Nault
 Andrea J. Neeb
 Katherine J. Nguy
 Michelle L. Nguyen
 Brian Nguyen
 Gregory T. Nguyen
 Fakhria Noori
 Elena D. Norris
 Ogechi A. Nwogu
 Patrick Olal
 Christopher G. Olney
 Olusegun O. Olutoto
 June Marie A. Overly
 Kirstin S. Pagenkopf
 Darshana Bahen S. Panchal
 Avtar K. Panesar
 Alejandro N. Panuelos
 Yunjeong Park
 Krupali Patel
 Vanessa R. Patterson
 Adrian D. Pereira
 Katie L. Perpeluk
 Stéphanie Perrault
 Bailey Philippot
 Elizabeth M.Y. Pickles
 Melissa H. Pleasance



Conor A. Porter
 Shannon L. Porter
 Ryan K. Poulter
 Laura M. Pratt
 Véronique L. Prevost
 Tannis Prince
 Jacob W.S. Pyper
 Maxime K.D. Quach
 Cale J. Rainkie
 Pramod P. Raut
 Jeffrey L. Reed
 Surendra Regmi
 Doriane Rehel
 Vanessa D. Resendes
 Valérie Rhéaume
 Christopher R. Rizarri
 Natalia Rom
 Alexandra Romero Vergara
 Danny J. Rowsell
 Kathryn M. Royer
 Jennifer L. Rudnisky
 Shelby A.M. Sanderson
 Roseanne C. Santiago
 Steven E. Sarunsky
 Camille Savenkoff
 Sarah M. Savoy
 Tarnnumjahan M. Sayed
 Melissa Scalzo
 Nadia S. Schneider
 Eduardo Segura Cruz

Adriana F. Sferrazza
 Wesley S. Shakirov
 Abida Sharmin
 Sabina Sharmin
 Bonnie Shea
 Catherine J.H. Shen
 Dilbagh Singh
 Devina Singh
 Kaitlyn M. Slater
 Jennifer E. Smith
 Erica D. Smythe
 Minsi Song
 Louise D. Stankevich
 Katelyn J. Stewart
 Barry A. Stone
 Arielle L. Stromberg
 Dhanya Sudarsanabhai
 Mark C. Sweeney
 Arezou Talebi-Azar
 Abby Tan
 Wenhua Tang
 Seyedmstafa Tavalla
 Tesfit H. Teame
 Ekaterina Temirov
 Krysta C. Terry
 Josee Therriault
 Swischana Thiyagarajah
 Stephanie C. Thompson
 Rebekah M. Thompson
 Allison D.R. Tilley

Christina Tra
 Ryan J. Trimble
 Alexandra Trowsse
 Cara J. Twohig
 Stéphanie Vaillant
 Maria Isabel U. Valerio
 Sheena Natasha E.
 Van Asseldonk
 Bapikka Vasanthan
 Jeffraim E. Velasco
 Kristen A. Versluys
 Ainkaran Vijayaratnam
 Sarah J. Vines
 Michelle Eveline Wells
 Vanessa M. Whalen
 Kyle R.L. Wilson
 Tyler B. Woitt
 Christina S.Y. Wong
 Cindy Wong
 Tonny Wu
 Kirsten T. Wyganowski
 Kirsten C. Yandt-Davis
 Dong Mei (Melinda) Yang
 Valerie W. Yee
 Renata Yehia
 Yi Shan Emily Yu
 Lei Zeng
 Jia Chun Zhang
 Xing Kai Zhang
 Denise J. Zufelt

MLT Clinical Genetics

Allison P. Belfall
 Marie Drake
 Emily N. Fullerton
 Christine Ishu
 Rahim Kaba
 Kelly M. Kung
 Ryan A. Moxsom
 Sandy M. Rey
 Ariel J. Rifle
 Melanie Sawka
 Sean L. Simko
 Alexander Sio
 Madhuran V. Thiagarajah
 Quynh Ngan (Jenny) Tran

MLT Diagnostic Cytology

Heather S. Currens
 Daniel G. Dimitrakopoulos
 Jennifer Downey
 Aubrey M. Gribbon
 Jenny R. Jimenez
 Sydney M. Koshinsky
 Brendan O'Brien
 Chantel A. Salerne
 Erin R.M. Stephen
 Lisha Zhang

MLA

Zareen Gul Aamir
 Rodel F. Acaso
 Mayyada Al Obaidi
 Crystal A. Aldred
 Blessing Aleachenu
 Jasmine Aliermo
 Grace Allen
 Ma. Catherine Y. Ancheta
 Stacey J. Anderson
 Angeliq P. Ang Co

Bobby J. Anose
 Jessica Araujo
 Sarah R. Ashley
 Beenish Asim
 Divina L. Atayan
 Justine Austria
 Margaret E. Banaag
 Taira Baquiran
 Angela S. Barahona
 Vicki A. Bates
 Laarni Mae R. Bautista
 Brittany V. Bell
 Livy T. Bernardino
 Morgan T. Bernatchez
 Jessica L. Booth-Schlievert
 Darianne Erika C. Bordon
 Janice Brown
 Phylicia P. Castello
 Anna B. Chajter
 Robbie Chan
 Dana A. Chiasson
 Kelsey M. Chiasson
 Macy M.C. Cimafranca
 Celia Cohall
 Lynn Cormier
 Edna J. Costales
 Joey M. Covino
 Megan M. Cranford
 Christine Da Silva
 Lorna Dela Cruz
 Rio A. Dela Cruz
 Angelo Ray C. Dela Rosa
 Jayshree S. Desai
 Bing D. Detorres
 Usha J. Devani
 Katalin Dezsofi
 Pawandeep K. Dhaliwal
 Poonam K. Dhillon
 Jennifer L. Dickinson
 Chetan D. Divecha
 Danielle Doering
 Mary Rose P. Domingo
 Samantha C. Dow
 Megan N. Dowe
 Chimera R. Downey
 Mikaela R. Driedger
 Erin M. Dunn
 Kimberly A. Eaton
 Anne Arvin S. Echavia
 Jacqueline M. Edström
 Reaghan A. Embertson

Olivia Emino
 Glenn Peter C. Entea
 Heather C. Erler
 Carolyn J. Eskritt
 Oluwakemi M. Fayemiwo
 Janine Angelica T. Fontanilla
 Rakhi Galhotra
 Keshav K. Gautam
 Calista A. George
 Lauren J. Gerrits
 Anthony Giacalone
 Esther L. Gowing
 Kara L. Graves
 Jennifer Gregoire
 Darian B. Griffiths
 Bronwyn N. M. Hanoski
 Carol L. Harper
 Carly Harris
 Lena Harrison
 Angelika Hergert
 Maria C. Hibbs
 Katharina Hiebert
 Momoko Hirata
 Joseph G. Humphrey
 Mohammed M. Hussain
 Connie Hynes
 Kristyn S. Ignacio
 Marina Ilkanaev
 Venesa A. Javines
 Yimeng Jia
 Sadaf Joharchi
 Happymol John
 Anosha Kanagaratnam
 Chandra Kannan
 Harmandeep Kaur
 Michele A. Kavanagh
 Debra L. Kazimir
 Yun-Pui Kee
 Mary M. Kerr
 Haley King
 Sean M. Knox
 Catherine J. Kovacs
 Kurunathy Kugalan
 Alok Kumar
 Amanda L. Kurpieweit
 Clarice Christine A. Labios
 Nathaniel Gil L. Lacandula
 Noemi O. Lacap
 Madeleine O. Lacson
 Kristi A. Lapp
 Janice Lee





Joanne B. Leon
Rebecca L. Lewis
Dan Li
Camilla E. Libres
Olwyn Mac Curtain
Rachel Mah
Julianna Makowensky
Tauqir A. Malik
Janice B. Manzano
Isabel O. Marasigan
Mea Marasigan
Paritaben Tejal Marfatia
Janea N. Marrero Oussat
Steffane A. McConnell
Kacey-Neille McGregor
Claudia Medeiros
Phyu Lai Min
Huma N. Mirza
Rana Mohseni
Xenia V. Molina
Andrea J. Mullett
Dikshita Nakarmi
Eugene Eta Ndip
Genalyn M. Nemiada
Disha U. Nesadiya
Cheryl A. Neveux
Evaristo Jr. D. Nigoza
Liana E. Otten
Mara Alvina D. Palisoc
Paulomi M. Paliwal
Oluwafemi K. Palmer
Rachel Panampunna
Leha Panchalingam
Sirsana Pandit
Diane Paradis
Piera S. Passaro
Jipal S. Patel
Lisa L. Patterson
Anne Patterson
Julie A. Penner
Kimberly M. Penney
Nadia Phulpoto
Kayla K. Piccott
Valerie L. Piche
Tamara J. Powell
Melanie M. Prevost
Liju Publicover
Amal Qureshi
Simranjeet K. Rai
Tharshan Rajalingam
Sumana Ram

McKayla Renwick-Peever
Emilie Ritchotte
Caroline B. Rivera
Amber E. Ross
Stéphanie Roussel
Chloé Rousselle
Antonio M. Rowe
Aldie A. Sabalones
Qudsia I. Safi
Mary Ann T. Sahagun
Stacy-Ann Samuda
Anosha Sarwari
Vanessa S. Serrano
Anum Shakeel
Amanda Shaw
Edward H. Shin
Karanbir Singh
Vahini Sivapalan
Nicole A. Smith
Rabeya Sultana
Kayla J.M. Swain
Shazia Tabassum
Joseph A. Tagle
Jennifer E. Tanada
François N. Tassé
Farida Tedjani
Xenia T. Tolosa

Kissette C. Torres
Kelly S. Traverse
Teresa Tu
Reg Turner
Kathy-Lee S Twyne
Daisy S. Ursua
Farrah Mae Valmores
Mamata Parthiv Varma
Amirah Vastani
Evangeline M Vega
Rose May Velilla
Vanessa D. Veneau
Marie Ianthe G. Villacencio
Kitchie D. Visda
Elizabeth Wakefield
Edward Wan
Amber L. Washington
Heather R. Wharton
Serena L. Williams
Ta-Kisher H. Williams
Deborah N. Williams
Hailey J.L. Willson
Krystal A. Windsor
Ana M. Wojcik
Samuel Wong
Germeen Zakhari
Amy L. Ziegel



Celebrate National Volunteer Week April 11 – 15, 2016



CSMLS is an organization dependent on the personal contributions of our members. As National Volunteer Week approaches, we would like to recognize the devoted volunteers who contribute their time, knowledge and expertise toward the society and the medical laboratory profession.



CSMLS  SCSLM
Canadian Society for Medical Laboratory Science
Société canadienne de science de laboratoire médical

Wondering what all the Buzz is about?



LabBuzz

A collection of medical laboratory news and articles delivered straight to your inbox every other week!

Subscribe today and be sure you don't miss anything!

labbuzz.csmls.org

CSMLS Report on National Certification Examination Performance

The CSMLS Report on National Certification Examination Performance contains national examination performance data for Canadian Medical Association (CMA) accredited medical laboratory education programs in Canada. It specifies how many candidates from each program challenged the certification examination and the pass rate (the percentage of candidates that passed the exam) for each individual program.

In order to provide valid comparisons of graduates from accredited training programs, the report only includes performance data of first-time examination candidates from the February, June and October exam sessions. It does not include any exam candidates that have received exam eligibility through a prior learning assessment or are rewriting the exam.

For more information on the purpose of this report and for archives of previous years' reports, please visit the CSMLS website, csmls.org, under "How to be a medical lab professional".

* NR – Not Reportable: Training programs with less than five (5) exam candidates will not be reported; the data is not statistically significant.

| Medical Laboratory Assistant | Total Exam Candidates | | |
|---|-----------------------|------------|--------------|
| | Grand Total | Total Pass | Pass Percent |
| CMA Accredited Programs | | | |
| College of North Atlantic - Grand Falls Windsor | 10 | 10 | 100% |
| New Brunswick Community College | 5 | 5 | 100% |
| Oulton College | 27 | 27 | 100% |
| College Communautaire du Nouveau-Brunswick | 5 | 5 | 100% |
| St. Clair College of Applied Arts and Technology | 22 | 20 | 91% |
| St. Lawrence College of Applied Arts and Technology | 28 | 27 | 96% |
| Mohawk College/ The Michener Institute of Applied Health Sciences | 8 | 6 | 75% |
| Confederation College of Applied Arts and Technology | 34 | 29 | 85% |
| Saskatchewan Polytechnic | 9 | 7 | 78% |
| Northern Alberta Institute of Technology | 45 | 44 | 98% |
| Southern Alberta Institute of Technology | 49 | 46 | 94% |
| Red Deer College | 15 | 13 | 87% |
| MTI Community College | 33 | 29 | 88% |

| General MLT | Total Exam Candidates | | |
|---|-----------------------|------------|--------------|
| | Grand Total | Total Pass | Pass Percent |
| CMA Accredited Programs | | | |
| College of the North Atlantic | 18 | 13 | 72% |
| Nova Scotia Community College | 20 | 8 | 40% |
| New Brunswick Community College | 23 | 20 | 87% |
| Collège communautaire du Nouveau-Brunswick - Campus de Dieppe/Université de Moncton | 8 | 6 | 75% |
| Dawson College | 17 | 15 | 88% |
| CEGEP Chicoutimi | < 5 | NR | NR |
| CEGEP Rimouski | 11 | 6 | 55% |
| CEGEP Rosemont | 8 | 4 | 50% |
| CEGEP Shawinigan | < 5 | NR | NR |
| CEGEP St Jean-sur-Richelieu | < 5 | NR | NR |
| CEGEP Ste-Foy | < 5 | NR | NR |
| CEGEP de l'Outaouais | < 5 | NR | NR |
| Cambrian College | 32 | 17 | 53% |
| St. Clair College of Applied Arts and Technology | 25 | 19 | 76% |
| St. Lawrence College of Applied Arts and Technology | 29 | 27 | 93% |
| The Michener Institute of Applied Health Sciences | 57 | 54 | 95% |
| University of Ontario Institute of Technology | 21 | 16 | 76% |
| Red River College | 34 | 22 | 65% |
| Saskatchewan Polytechnic | 14 | 12 | 86% |
| Northern Alberta Institute of Technology | 28 | 25 | 89% |
| Southern Alberta Institute of Technology | 47 | 34 | 72% |
| University of Alberta | 26 | 23 | 88% |
| British Columbia Institute of Technology | 65 | 49 | 75% |
| College of New Caledonia | 18 | 10 | 56% |

| Clinical Genetics | Total Exam Candidates | | |
|---|-----------------------|------------|--------------|
| | Grand Total | Total Pass | Pass Percent |
| CMA Accredited Programs | | | |
| The Michener Institute of Applied Health Sciences | 13 | 12 | 92% |
| British Columbia Institute of Technology | 8 | 7 | 88% |

| Diagnostic Cytology | Total Exam Candidates | | |
|---|-----------------------|------------|--------------|
| | Grand Total | Total Pass | Pass Percent |
| CMA Accredited Programs | | | |
| QEII/Dalhousie School of Health Science | < 5 | NR | NR |
| The Michener Institute of Applied Health Sciences | 5 | 5 | 100% |
| Saskatchewan Polytechnic | < 5 | NR | NR |

NATIONAL MEDICAL LABORATORY WEEK 2016

APRIL 24 – 30, 2016

medlabprofessionals.ca

For one week every year, a spotlight shines on Medical Laboratory Professionals. This year's national awareness campaign focuses on educating the public about the important work done by you – medical laboratory professionals.

To help mark this special week, CSMLS provides tools to help you celebrate while advocating and educating the public about the important work done in the lab.

CELEBRATE

The best part of Lab Week are the celebrations. Here are a few ideas to get you started:

- Plan a lunch with colleagues
- Organize a lab week themed game or contest with prizes
- Host an external event with fellow med lab professionals
- Celebrate with cake using the customized lab week cake decal

ADVOCATE

Be an advocate for the medical laboratory profession and help educate others by:

- Sharing the website, medlabprofessionals.ca on social media
- Creating a display using posters, brochures and stat cards
- Organizing a lunch and learn
- Giving an informational presentation or webinar
- Hosting a lab tour

To download free items from the toolkit, visit labweek.csmls.org. Be sure to follow CSMLS on Facebook and Twitter (@csmls) to keep up-to-date and use the hashtag #LabWeek to share your photos and events with the entire lab community.

Find us on

 facebook.com/csmls
[@csmls](https://twitter.com/csmls)

 #LabWeek



CSMLS – THE NATIONAL VOICE OF CANADA'S MEDICAL LABORATORY PROFESSION

As the national voice of Canada's medical laboratory profession, CSMLS represents the needs and concerns of medical laboratory professionals when working with laboratory and health care-related organizations. CSMLS Board of Directors, staff and volunteers attend meetings, conferences and events on behalf of CSMLS members and the entire medical laboratory profession. Here is where your voice was heard recently:

JANUARY

College of Medical Laboratory Technologists of Manitoba (CMLTM) Meeting with Deputy Minister of Health *WINNIPEG, MB*

Conference Board of Canada Leaders Roundtable on Immigration *MONTREAL, QC*

Canadian Network of Agencies for Regulation (CNAR) Board Meeting *TELECONFERENCE*

FEBRUARY

Canadian Society of Association Executives (CSAE) CEO Symposium *TORONTO, ON*

CSMLS Presentation: Explore the Future of Laboratory Science *LONDON, ON*

CSMLS Presentation: Explore the Future of Laboratory Science *HAMILTON, ON*

Interprofessional Education Day – St. Lawrence College *KINGSTON, ON*



CSMLS Board of Directors Election

Help shape the future of the Society with your vote

2017 Offices Open for Election:

- Director, Atlantic
- Director, Alberta & Northwest Territories
- Bilingual Director

Voting closes May 9, 2016

election.csmls.org



Expand Your Horizons

**LAB
CON
2016**

Charlottetown, PEI
June 17-19

Sessions Include:

- Lean Six Sigma In the Lab
- Introduction to the CSA Tool Kit
- Quality Assurance
- Maritime Newborn Screening Program
- Interoperative PTH Testing
- Legal and Ethical Challenges of an MLT
- Transfusion Service Optimization
- Plasma Utilization
- Cytology Spotlight

...and many more!

Remarkable Speakers
Interactive Exhibits

Limitless Networking
Sensational Socials

NEW THIS YEAR: Managers' Intensive Program

Friday, June 17th, 2016

Join industry experts as they help laboratory leaders navigate laboratory costing, performance management, developing leadership skills and more!

Visit labcon.csmls.org to register today.