

# Webinar: Simulation in Assessment of MLT Competencies

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Canadian Society for Medical Laboratory Science  
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# Why??

- **Global shortage** of practitioners due to clinical placements
- Determine the use of **simulation for assessment and evaluation** purposes of CSMLS competencies;
- Stakeholder input critical for **consensus-building** sessions.



# Why??

- **Simulation already in use** – placements vary from 17-40 weeks
- CSMLS largest supporter of **Accreditation**
- Accreditation body needed guidance for **assessors**
- **Regulatory** body support critical

# Guidance Document – Educators Choice

- Use of simulation for **assessment and evaluation** purposes for CSMLS MLT competencies, to supplement education, not replace!
- Defines **MAXIMUM** use of simulation in evaluation – replacing sign off in clinical practicums
- Program can choose to do **ZERO** simulation

# Assumptions

- Maximum limit for simulation set (no minimum)
- Evaluation of competencies may require multiple evaluations across time
- Maintenance of Competence is expected – even when signed off.

## What is sim in our context?

*Simulation is an educational technique used to **imitate real life scenarios** (in part or whole), which enables participants to demonstrate and receive feedback on **knowledge, skills, abilities and/or judgment**. This can include but is not limited to communication, problem-solving, critical thinking and the ability to collaborate and work effectively within a health care team.*

- <https://www.csmls.org/Research/Projects,-Reports-Presentations/Simulation-Clinical-Placement-Initiative.aspx>

## Can reflect simple to complex situations....

- ✓ through interactive written case-based scenarios;
- ✓ computerized laboratory information system gaming;
- ✓ inter- or intra-professional role playing;
- ✓ standardized patients;

## Can reflect simple to complex situations....

- ✓ task trainers such as rubber arms for phlebotomy;
- ✓ virtual simulation for specimen identification;
- ✓ haptic simulation;
- ✓ high fidelity simulation, or
- ✓ hybrids of any of these examples.



The screenshot shows a web browser window with the following elements:

- Browser Tabs:** "New Tab", "(4) Canadian Chihuahua Rescue", "CSMLS - SCSLM / Simulation & Clinical Placement Initiative".
- Address Bar:** "csmls.org/Research/Projects,-Reports-Presentations/Simulation-Clinical-Placement-Initiative.aspx".
- Page Header:** CSMLS SCSLM logo, "Canadian Society for Medical Laboratory Science", "Société canadienne de science de laboratoire médical".
- Navigation Menu:** About Us, Medical Laboratory Professionals, Membership, Certification, Professional Development, Advocacy, Research, Career Centre.
- Left Sidebar (Research):** Research & Special Initiatives at CSMLS, Projects, Reports & Presentations (expanded), Reports and Select Articles, Special Initiatives, Hot Spot Review, Simulation & Clinical Placement Initiative, The Canadian Medical Laboratory.
- Breadcrumbs:** Home > Research > Projects, Reports & Presentations.
- Main Content:**
  - Section Header:** Simulation & Clinical Placement Initiative
  - Sub-navigation:** Background, Initiative, Simulation Definition, Results, Commit Now.
  - Text:** "Canada is facing a serious health human resource (HHR) shortage of medical laboratory professionals, specifically medical laboratory technologists (MLTs)."
  - Text:** "In 2010, the Canadian Institute for Health Information identified that approximately half of all MLTs would be eligible to retire within 10 years, with the greatest impact felt in Canada's rural and remote communities. This period of time has..."
- Footer:** Windows taskbar with icons for File Explorer, Edge, Chrome, Outlook, Firefox, Spotify, and PowerPoint. System tray shows "ENG", "2:58 PM", and "2020-06-16".

csmls.org  
scslm.org

# Considerations for accreditation

# Consensus Building and Qualifiers

## Thresholds

- Concerns that in some instances, **simulation alone is insufficient**
- A hybrid approach relying on both clinical and simulation proposed

## Challenges towards implementation

- Resource requirements to implement simulation

Quality required to provide an authentic learning experience

# Limits and Thresholds

- CSMLS will **not set minimum limits** for evaluation using simulation to accommodate needs for programs to create flexible models (voluntary)
- A maximum limit for simulation of **70% per competency section**, excluding section 7, was established.
- **Grandparenting** is acceptable for current successful programs (6-year Accreditation Canada status) who exceed the maximum limits set, meaning they do not have to revert to terminus sign off in clinical placement only.

# Recommendations on Implementation

- **Review** on a regular basis, and that this occurs in line with the competency profile review process
- CSMLS creates an **implementation guidance document** for educators – TBD with help from EQual

**Research**

- Research & Special Initiatives at CSMLS +
- Projects, Reports & Presentations -
  - Reports and Select Articles
  - Infographics
  - Special Initiatives
  - Hot Spot Review
  - Simulation & Clinical Placement Initiative
  - The Canadian Medical Laboratory Profession's Call to Action
- Research Ethics +
- Grants and Resources +



## Reports and Select Articles

CSMLS conducts health system- and medical laboratory profession-impacting research and projects driven to support positive change for its current and future members. We continue to foster partnerships and ideas that propel the medical laboratory profession forward at provincial and national levels.

For archived reports, projects and presentations, please contact [research@csmls.org](mailto:research@csmls.org) with your inquiry.

Annual Reports

Report Archive

Title	Description	Publication Year
Simulation and Competency Obtainment	CSMLS Recommendations for Simulation in Assessment of MLT Competencies	2022

EN: <https://www.csmls.org/Certification/Educators-Hub/Guidance-Documents.aspx>

FR: <https://www.csmls.org/Certification/Centre-de-formateurs/Document-d-orientation.aspx?lang=fr-CA>

# Questions?

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*Accreditation is intended to support educational programs in preparing competent workforce and graduates that can deliver **QUALITY** care/service.*

***Entry-to-Practice and Specialization***





# Accreditation Considerations and Impacts

## 1. Accreditation Criteria Specify That: Competency attainment validation IS required

### Key Factors/Indicators:

- Programs must provide students with the opportunity to demonstrate competencies in the clinical environment. If some select competencies cannot be attained in the clinical environment, sound rationale for the choice must be provided for assessment in the simulated environment.
- Final validation of competency attainment in the simulated environment must be the exception rather than the rule.



# Accreditation Considerations and Impacts

## 2. Accreditation Criteria Specify That: Competency attainment data **MUST** be aligned and presented

### Key Factors/Indicators:

- [...] The program ensures that all competencies are assessed and attained as specified in the national competency profile.
- The program maintains student records that demonstrate all competencies are practiced, performed and attained in the performance environment(s) specified in the national competency profile. [...]



# Accreditation Considerations and Impacts

3. Accreditation Criteria Specify That: Students **MUST** be provided adequate and equitable learning opportunities for the practice and attainment of the required competencies.

## Key Factors/Indicators:

- Students have timely, adequate and equitable learning opportunities that enable them to practice and attain the required competencies, as specified in the national competency profile [...]
- Clinical/practicum learning opportunities are in the actual practice setting of the profession (hospital, clinical, paramedic unit). The program consults the national competency profile for the profession to determine any direction or latitude regarding the attainment of certain competencies in environments other than the actual practice setting, for example, attainment via simulation[...]



# Accreditation Considerations and Impacts

## Note on performance environments:

Performance environments refer to the context in which the competency is assessed. The performance environment can be simulation (typically in the institution's laboratory facilities), clinical or practicum (in the actual practice setting —hospital, clinic, EMS service).

- Where the national competency profile stipulates performance environments, competency attainment must be demonstrated in the identified environment. [...]
- If the national competency profile does not stipulate performance environments, it is expected that attainment of the competencies in the national competency profile requiring performance of clinical skills will be assessed in the actual practice setting of the profession. The rationale for any variation in performance environment must be provided.
- In all cases, evidence of attainment of competencies that are clearly academic in nature, (e.g., “understand”, “appreciate”, etc.) need not be provided as these are typically assessed via written tests and exams.

# What has changed?

Use of guidance document in the accreditation process

EQual survey teams will use the guidance document as a supplement to the CSMLS competency profile for MLAs when assessing applicable criteria.



# Considerations for compliance with criteria

## Requirements for accreditation:

### **Criterion – *Assessment of competencies***

- Assessment tools validate students' attainment of required competencies.
- The tools relate directly to the competency-based learning objectives, evaluate student competence according to defined performance criteria, and are used consistently and accurately.
- Students and assessors are aware of applicable policies, procedures and tools.

### **Critical criterion – *Attainment of competencies***

- Student records include documentation of assessment of attainment of **all** competencies.
- The records include evaluations or assessments conducted in the clinical/practicum and simulation/laboratory environments.
- Evidence of attainment of academic competencies (e.g., “understand,” “appreciate,”) need not be provided, as these are typically assessed via written tests and exams.



# Considerations for compliance with criteria

## Requirements for accreditation:

### **Criterion - *Personnel with the appropriate and current training***

- Didactic and clinical personnel have received appropriate training on the assessment tools and on methods of evaluation using simulation.

### **Criterion - *Didactic learning resources***

- If simulation is used for assessment purposes in the didactic setting, the educational program must ensure it has appropriate equipment and supplies to support simulation activities.

### **Criterion - *Appropriate and equitable clinical learning opportunities***

- Educational programs must continue to provide an appropriate and equitable clinical learning experience for students.
- If simulation is used for assessment purposes in the clinical setting, the educational program must ensure the clinical site has access to appropriate equipment and supplies to support simulation activities.

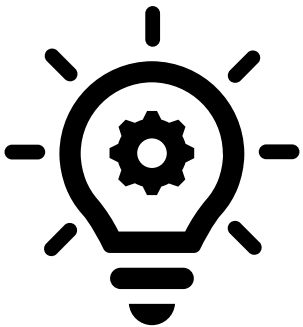


# Considerations for compliance with criteria

Requirements for accreditation:

## Requirement - Quality Improvement

- Educational programs must evaluate the effectiveness of their chosen approach to assessment of competency attainment and take corrective measures as required.



### Criterion 5.1.5

The educational program researches and determines the value of incorporating new technologies or methods into programming to improve the quality or to respond to strategic directions in the profession.



# Question & Answer



# Thank you!



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