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Canadian**



Medical education:

Enhancing the learner
journey by addressing
5 challenges.

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Introduction

In the dynamic landscape of medical education, ensuring an optimal learning experience for aspiring physicians is crucial. Yet, Faculties of Medicine often grapple with a multitude of administrative challenges that can hinder the progression of learners.

The shift towards competency-based medical education (CBME) and competency by design (CBD), for example, has revolutionized the way pre-med, residents, and fellows are assessed.

In this comprehensive guide, we delve into 5 key challenges faced in medical education and we showcase innovative solutions to overcome them. We also provide a list of key features that Faculties of Medicine should foster to create a positive learning environment by overcoming these challenges.

Join us on a journey to revolutionize medical education and empower the next generation of physicians.

Medical education in canada



17
medical
schools



13K+
applications
each year



≈ 7.5%
admission
rate



≈ 3K
learners
graduate
each year

Challenge 1:

Streamlining the admission and registration process.

In Canada, a single Faculty of Medicine can receive between 2,000 and 6,000 applications per year, typically resulting in an admission success rate below 10%. This entails managing a significant volume of interviews, communication, and data, including payments and documentation. Streamlining this experience for both administrators and applicants while maintaining impartiality in candidate selection is no small task.



2K to 6K
applications
can be received annually in a
single Faculty of Medicine.

Overcome this challenge by:

Offering online registration and payment, combined with flags and alerts.

Online portals streamline admission and registration by allowing applicants to complete preregistration, registration, and payment, themselves. Automation within the portal calculates admission criteria and manages interview scheduling. Applicants are instantly informed of updates and deadlines, and offers of acceptance are communicated directly through the portal, which enhances the experience and saves time for everyone.

Key features to look for:

- Online preregistration, registration, and payment
- Overview of applicant's education and academic background
- Filters to view applicants based on various criteria
- Applicant status, schedules, and flags for missing information
- Bulk emails and alerts to applicants

Challenge 2:

Building a curriculum that aligns with competency-based medical education (CBME).

While competency-based medical education holds great promise for preparing learners for competent practice, its implementation requires dedication and ongoing innovation. With assessment methods transitioning away from the traditional time-based model of education, the curriculum now revolves around entrustable professional activities (EPAs). This shift entails not only a change in mindset but also processes, as managing EPAs and CBME curriculum requires significant communication, data, and time.



More than **130 EPAs**

are needed to complete some CBME medical specialty curriculum.

Overcome this challenge by:

Using EPA mapping and CBME dashboards to align curriculum with accreditation standards.

A robust platform is essential to successfully implement CBME, or competency by design (CBD). Each step of the curriculum must take EPAs into account, encompassing rotations and dynamic CBME assessment forms. Visual maps and dashboards are key, as they make it easier to visualize the relationship between different components and identify areas for improvement. This holistic overview of learner performance facilitates competence committee meetings and ensures that decisions align with accreditation standards and EPA milestones.

Key features to look for:

- CBME dashboard with a consolidated view of learner progress, EPAs, achievements, and requirements
- Visual curriculum maps that illustrate the structure and progression of the curriculum
- Easy trigger of CBME assessments on mobile devices
- Rotation data used for evaluations and EPA mapping
- Intelligent versioning that provides effortless updates for stage curriculum, and preserving data integrity across versions

Challenge 3:

Coordinating academic schedules with clinical rotations.

Clinical rotations are at the core of healthcare education, given they provide hands-on training and experience. However, coordinating schedules can quickly become complex when learners work under the supervision of physicians or other healthcare professionals. Without a centralized view of everyone's schedules, coordinating academic and clinical activities is time-consuming. Decisions can even impact the quality of care.



30K rotations
& placements
can occur annually in a single
faculty of medicine.

Overcome this challenge by:

Using a centralized scheduling hub with intuitive templates.

To streamline coordination and enhance the educational experience for all stakeholders, administrators must have access to the right planning tool. Creating rotation templates and making bulk edits for scheduling and assignments should be easy. Additionally, administrators should have access to a centralized view of rounds, lectures, conferences, and other relevant events. This 360 view ensures the smooth management of academic and clinical schedules.

Key features to look for:

- Scheduling with drag-and-drop rotation templates
- Bulk edits for rotation and assignments
- Event manager with rounds, lectures, symposiums, and conferences, Zoom links, attachments, and more
- Easy-to-use rotation evaluation mapping
- Catalog of rotations at the institutional level
- On-demand, rotation-specific EPA evaluation mapping (Competency-Based Education)

Challenge 4:

Giving Timely and Engaging Feedback to Learners.

The more practical the skills being assessed, the more relevant it becomes for learners to receive early feedback so that adjustments can be made if necessary. However, if the evaluator is not well-equipped to effectively communicate the evaluations, it is quite likely that learners will receive feedback too late in the learning process. Furthermore, doctors typically have demanding schedules, so creating engaging evaluations that accommodate their availability can be challenging.



Up to **360K**
evaluations
can be processed annually in
a single Faculty of Medicine.

Overcome this challenge by:

Communicating evaluations in real-time and giving clear insights into areas of improvement.

Utilizing a notification system and a well-thought-out interface can encourage educators to administer assessments as learners progress. For instance, web-based technology enables assessments from any device, removing infrastructure barriers. Learners access assessments instantly, gaining immediate progress insights. This enables timely improvements for learners and adaptive teaching strategies accordingly.

Key features to look for:

- Form editor that allows efficient creation with reusable templates and diverse answer sets
- Dynamic form branching that tailors evaluations to user responses
- Mobile interface for daily, real-time observations
- Instant notifications for performance flags
- Clear flag visibility on evaluation dashboard
- Faculty performance measures (teaching effectiveness score)

Challenge 5:

Maintaining data accuracy on the complete learner journey.

When educational data is stored in multiple systems or formats, maintaining consistency and accuracy across different platforms becomes challenging. Inaccurate data may lead to misallocation of resources, as educational programs may invest in areas that do not align with learners' actual needs or performance levels. Furthermore, educators may struggle to identify learners at risk of failing, ultimately compromising the quality of education provided.



Up to **12 years**

to complete the medical learner journey, not including continuing education.

Overcome this challenge by:

Configuring dashboards and real-time reports that can analyze multidimensional information.

Without a cloud-based platform that connects each step of the educational journey in real-time, it becomes difficult to maintain data accuracy. Educators and managers need multidimensional analysis to identify areas for improvement. Given the variety of needs and report types (such as learner summary, milestones, payments, requirements, etc.), dashboards should offer easy customization options with advanced filtering.

Key features to look for:

- Real-time reports that spotlight views of key information (learner summary, stage reports, EPA summary, EPA milestone, etc.)
- Consolidated view of learner progress, achievements, and requirements
- Advanced filtering and reporting with saved filter selections
- Calculated columns that support “what if” scenarios with multidimensional information analysis



Risks of not addressing these challenges.

	Challenge 1 Streamlining the admission and registration process.	Challenge 2 Building a curriculum that aligns with competency-based medical education (CBME).	Challenge 3 Coordinating academic schedules with clinical rotations.	Challenge 4 Giving timely and engaging feedback to learners.	Challenge 5 Maintaining data accuracy on the complete learner journey.
Learners	Risk of application errors or delays impacting opportunities and stress from prolonged uncertainty.	Risk of feeling overwhelmed if CBME expectations are unclear, poorly communicated or inconsistent.	Risk of scheduling conflicts disrupting learning continuity and causing stress.	Increased likelihood of skill stagnation and loss of motivation due to delayed feedback.	Risk of receiving inappropriate support and confusion about progress due to inaccurate data.
Supervisors	N/A	Inability to effectively implement CBME assessments while balancing workload and adapting teaching strategies.	Challenge to optimize learning experiences, potentially affecting curriculum delivery and assessment.	Increased workload due to complex evaluation design and potential strain on learner-educator relationships.	Challenge to personalize or improve instruction without accurate learner information.
Administrators	Potential for resource strain and compromised candidate experience due to overwhelming application volumes.	Difficulty in coordinating resources and risks of inconsistent CBME implementation across programs.	Difficulty in ensuring efficient coordination, impacting both education quality and operational efficiency.	Risk of suboptimal learning outcomes and potential for negative impact on program reputation.	Difficulties in identifying areas for program improvement and risks of misallocating resources.



Learners



Supervisors



Administrators



Benefits of addressing these challenges.

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Learners	Simplified application process, reduced stress and clear overview of statuses.	Clear understanding of competency expectations, personalized feedback, and enhanced learning outcomes.	Clear rotation overview that enhances preparedness, reduces stress and optimizes hands-on training.	Immediate feedback and clear insights into areas for improvement that fosters skill improvement and engagement.	Visual progress tracking of completed rotations and evaluations that promote accountability and motivation.
Supervisors	N/A	Enhanced visibility of learner progress and comprehensive data insights that enable targeted interventions.	Enhanced communication with learners and easier management of schedules, assignments, and rotations.	Support in identifying and addressing learner needs efficiently with real-time assessment tools.	Holistic view of learners' progress and early identification of potential issues to provide timely interventions.
Administrators	Increased efficiency throughout the admission cycle and possibility to make data-driven decisions.	Improved alignment with accreditation standards and performance tracking that supports strategic planning.	Enhanced coordination that supports consistent educational experience across programs and quality of care.	Streamlined feedback processes for improved learner outcome and program reputation.	Insights into program effectiveness and enhanced data accuracy to support decision making and resource allocation.



Learners



Supervisors



Administrators

