STANDARD 5
ELEMENT EVALUATION FORMS

STANDARD 5: EDUCATIONAL RESOURCES AND INFRASTRUCTURE

A medical school has sufficient personnel, financial resources, physical facilities, equipment, and clinical, instructional, informational, technological, and other resources readily available and accessible across all locations to meet its needs and to achieve its goals.

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5.1 ADEQUACY OF FINANCIAL RESOURCES

The present and anticipated financial resources of a medical school are adequate to sustain the medical education program and to accomplish other goals of the medical school.

Requirement 5.1-1
The present and anticipated financial resources of the medical school are adequate to sustain the medical education program and to accomplish other goals of the medical school.

Analysis of evidence for requirement 5.1-1

Overall funding governance:
The Dean has authority for the budget of the medical school, and the governance of the medical school supports the effective management of its financial resources. The Dean engages in effective financial planning during regular meetings with the Senior Director, Vice Dean and Senior Associate Dean, Faculty Affairs, as well as at regular meetings of the Dean's Executive to address issues relating to the operating budget, current and projected capital needs. This ensures that the Dean has a comprehensive understanding of the Faculty's finances and overall effective financial management and budget controls. The Dean is accountable to the Provost for budget and finances, and a regular financial overview is provided at Department Head and Faculty Council meetings. Core infrastructure/base building maintenance is the responsibility of the University. Upgrades and renovations are paid for by the Faculty, and largely funded by philanthropy funds, supplemented by Faculty operating funds, research funding and funding from the Provost. The medical school's financial records have not been externally audited on its own, however the records are audited with the overall finances of the university.

Present financial resources:
The trends in past and present financial resources of the medical school indicate that they are stable and adequate to sustain the medical education program and to accomplish other goals of the medical school (Table DCI 5.1-1 A and and the AFMC financial statement in Supplemental Appendix 5.1-1 B1*)*. Current projected operational deficits due to provincial budget cuts and funding freezes are being offset via planned retirements, faculty and staff attrition, utilization of IRNA (Internally Restricted Net Assets) accounts, and vertical cuts to non-core programs (CME, etc.). The school has a risk mitigation plan in place to address current and projected short-term operational deficits.

Anticipated financial resources:
Successive years of cuts to provincial funding to the University of Calgary has resulted in annual budget deficits to the Cumming School of Medicine, although efforts have been made to protect funding to the UME program. A considerable amount of faculty funding has historically been provided through Alberta Health Services. However, this source of funding is also under budget pressures. To limit cuts within the CSM, a reserve fund has been utilized over the past 5 years, with the largest drawdown in 2022-23.

There is robust evidence of budget planning, central oversight, and coordination of budget planning among educational units. Mention is made of a plan to examine additional cost-savings measures, the trajectory of cuts and spend-down of reserve funds points to considerable uncertainty as to the ongoing adequacy of financial resources.

5.2 DEAN'S AUTHORITY/RESOURCES

The dean of a medical school has sufficient resources and budgetary authority to fulfill the dean's responsibility for the management and evaluation of the medical curriculum.

Requirement 5.2-1
The dean of a medical school has sufficient resources and budgetary authority to fulfill the dean's responsibility for the management and evaluation of the medical curriculum.

Analysis of evidence for requirement 5.2-1

The Dean is responsible for the overall CSM faculty budget. This includes working closely with the CSM Senior Director to identify and address budget challenges. Depending on the nature of the budget challenges, the Dean may also strategically elevate issues through appropriate channels. These channels can include discussions with the UCalgary Executive Leadership Team (ELT) such as the Provost, President, Vice Presidents etc., the Alberta Health Services leadership team including the CEO and Zone Medical Director, and Government of Alberta ministers of health or Advanced Education. Such channels provide the opportunity for the Dean to advocate for funding of new initiatives and address budget challenges appropriately beyond the existing budget allocated to the Faculty.

The Associate Dean-UME and the Senior Manager-UME prepare and submit an annual budget to the CSM Senior Director and Senior Associate Dean Education for review. The operating budget for the UME program provides for curriculum delivery including preceptor payments, as well as the operations of the UME office. The budget is based on projected class size, which is determined by the provincial government (Alberta Ministry of Advanced Education), with funding provided accordingly. If there are initiatives that arise outside of the annual budgeting cycle or if budget challenges arise, they are raised to the Dean for further discussion.

The Associate Dean-UME has budgetary authority for the management and evaluation of the medical curriculum and meets regularly (monthly) with the CSM Senior Director and the Senior Associate Dean Education regarding financial resources and issues impacting the program. Program evaluation data are also used to inform resource allocation.

5.3 PRESSURES FOR SELF-FINANCING

A medical school admits only as many qualified applicants as its total resources can accommodate and does not permit financial or other influences to compromise the school's educational mission.

Requirement 5.3-1
The medical school admits only as many qualified applicants as its total resources can accommodate.

Analysis of evidence for requirement 5.3-1

The evidence provided shows that the incoming class size is set between the medical school and provincial government in a way that ensures the provision of adequate resources for class size. The evidence shows that there are adequate resources in Calgary to meet the needs of a growing class and that key areas and resources have been expanded with this growth in mind.

Required Appendices 5.12-1 A3 and A4 detail the planned expansion to a regional medical campus in Lethbridge, in partnership with the University of Lethbridge. This collaborative expansion is in the early phase and current efforts focus on the development of the resources and infrastructure required for the expansion. At present there are no students at the regional medical campus, but the development timeline is ambitious and this Element should be monitored as the regional medical campus is developed and as initial students are enrolled to ensure that adequate infrastructure and resources have been developed.

Requirement 5.3-2
The medical school does not permit financial or other influences to compromise the school's educational mission.

Analysis of evidence for requirement 5.3-2

Evidence is provided that tuition levels are externally set and do not influence the educational program.

5.4 SUFFICIENCY OF FACILITIES AND EQUIPMENT

A medical school has, or is assured the use of, facilities and equipment sufficient to achieve its educational, clinical, and research missions.

Requirement 5.4-1
The medical school has, or is assured the use of, facilities and equipment sufficient to achieve its educational mission.

Analysis of evidence for requirement 5.4-1

Current facilities and equipment available are more than required for the current enrollments and are highly rated by learners. Expansion of facilities and equipment have been approved to accommodate program expansion and will remain above required needs throughout the period of expansion. Specifically, enrollment expansion and approved increased student enrollment are matched over the next 3 year period ending 2026.

Requirement 5.4-2
The medical school has, or is assured the use of, facilities and equipment sufficient to achieve its clinical mission.

Analysis of evidence for requirement 5.4-2

The Advanced Technical Skills Simulation Lab (ATSSL) is an accredited simulation center used by the CSM and affiliated organizations including Alberta Health Services and Mount Royal University, Southern Alberta Institute of Technology and many CME/CPD events. The ATSSL is supported by the CSM with 9 full time staff and 25 part time staff. The CSM recently received a $3 million grant to renovate the lab over the upcoming year to accommodate the Master of Physician Assistant Studies program.

Requirement 5.4-3
The medical school has, or is assured the use of, facilities and equipment sufficient to achieve its research mission.

Analysis of evidence for requirement 5.4-3

The core research facilities are supported by an annual operating budget and capital equipment support to maintain equipment and purchase new equipment needs. There are a variety of research centers and technical service facilities used by researchers at the CSM. There are multiple sources of funding including CSM budget, user fees, and federal and philanthropic support. Recently the Biosafety Level 3 facility was refurbished and recertified to support COVID 19 research.

5.5 RESOURCES FOR CLINICAL INSTRUCTION

A medical school has, or is assured the use of, appropriate resources for the clinical instruction of its medical students in ambulatory and inpatient settings and has adequate numbers and types of patients (e.g., acuity, case mix, age, gender).

Requirement 5.5-1
The medical school has, or is assured the use of, appropriate resources for the clinical instruction of its medical students in:
  i.   *ambulatory settings*
  ii.   *inpatient settings*

Analysis of evidence for requirement 5.5-1

UME learners at CSM have access to a wide variety of real and simulated clinical environments throughout their training.

In pre-clerkship (both Legacy and RIME curricula), students have clinical training in the Medical Skills Centre, a teaching centre designed to mimic an outpatient clinic. Students complete their initial clinical skills training in this location, with physician preceptors, using Standardized Patients (a cadre of actors who have been trained both in the skill of playing the role of patients, but also as educators, primed to give feedback directly to the learners).

Students then learn more specific aspects of clinical skills through the pre-clerkship, working with physician preceptors and real patients in both the Medical Skills Centre, but also in inpatient and outpatient environments within the health care system. Students work with physicians in clinical core sessions, Family Medicine Clinical Experiences and Career Development weeks during the pre-clerkship. In each of these sessions, students work in inpatient or outpatient environments (or both) based upon the work schedules of the physicians with whom they are training.

Each clerkship is overseen by a group of physicians from the clinical area of the relevant department or division. The clerkship schedules are developed with a mixture of inpatient and outpatient experiences and case mix that mimics the work of a physician practicing in this discipline. Through their clinical encounters, students will see patients of varying age, gender, case mix and acuity – as would be experienced by a practitioner in the clinical area.

While there is no 'gold standard' for what mix of inpatient and outpatient work is 'best', a simulation of the actual working environment appears to be appropriate. This is supported by student feedback from the ISA, GQ, and post-clerkship school-derived data.

Requirement 5.5-2
The medical school has, or is assured the use of, adequate numbers and types of patients (e.g., acuity, case mix, age, gender).

Analysis of evidence for requirement 5.5-2

As described above (requirement 5.5-2) there is no 'gold standard' for the most appropriate number or type of patients for students to see in a clinical environment. At this time, students complete their clinical experiences in busy clinical environments. The program is careful to ensure that appropriate numbers of students are present in clinical environments at any one time, so that the individual experience of each student is not diluted. Student data from the ISA, GQ, and post clerkship school derived data demonstrate that the vast majority of students feel that their access to patients is sufficient for clinical learning.

5.6 CLINICAL INSTRUCTIONAL FACILITIES/INFORMATION RESOURCES

Each hospital or other clinical facility affiliated with a medical school that serves as a major location for required clinical learning experiences has sufficient information resources and instructional facilities for medical student education.

Requirement 5.6-1

Each hospital or other clinical facility affiliated with the medical school that serves as a major location for required clinical learning experiences has sufficient information resources for medical student education.

Analysis of evidence for requirement 5.6-1

The DCI supports sufficient information resources. ISA data indicated over 95% of 3rd year students agreed with the statement "I consider that information resources available to me (other than computer/Internet access) are sufficient for my learning needs while I am at hospitals/clinical facilities used for required clinical learning experiences."

Requirement 5.6-2

Each hospital or other clinical facility affiliated with the medical school that serves as a major location for required clinical learning experiences has sufficient instructional facilities for medical student education.

Analysis of evidence for requirement 5.6-2

The ISA and DCI support adequate instructional facilities. On the ISA survey 93% of students in clinical rotation agreed with the statement: "I consider that the instructional facilities are sufficient for my learning needs while I am at hospitals/clinical facilities used for required clinical learning experiences."

5.7 SECURITY, STUDENT SAFETY, AND DISASTER PREPAREDNESS

A medical school ensures that adequate security systems are in place at all locations and publishes policies and procedures to ensure student safety and to address emergency and disaster preparedness.

Requirement 5.7-1
The medical school ensures that adequate security systems are in place at all locations.

Analysis of evidence for requirement 5.7-1

Security coverage at the Foothills campus is provided by Campus Security 24/7 in parallel with Work Alone and SafeWalk programs to support individual student needs. The student areas of the educational complex have University card access after-hours, and CCTV surveillance is used to monitor areas throughout the campus and adjacent medical facilities. Student badges are required to pass controlled access doors into student only areas. The ISA data show high ratings regarding safety and security. The only exception was a rating by 3rd year students of 88% for their understanding/perception of security at clinical teaching sites. This may reflect lack of orientation to the safety and security measures at hospital sites given that there are extensive measures to ensure public and staff safety at all Alberta Health Services sites, or may be a reflection of learning sites where there may be less obvious or developed supports (e.g. community clinical offices).

Requirement 5.7-2
The medical school publishes policies and procedures to ensure student safety.

Analysis of evidence for requirement 5.7-2

Multiple policies, procedures and guides support student safety and are communicated through student orientation from the CSM and AHS.

Requirement 5.7-3
The medical school publishes policies and procedures to address emergency and disaster preparedness.

Analysis of evidence for requirement 5.7-3

The CSM and AHS have active and regularly updated emergency and disaster preparedness policies and procedures in place. AHS performs regular mock disaster events to maintain awareness and understanding of those procedures for all medical facilities within AHS. The CSM performs annual evacuation drills to practice for emergency/disaster scenarios. All these policies and procedures are communicated through the CSM and AHS orientations, received before the first year and the beginning of clerkship, respectively.

5.8 LIBRARY RESOURCES / STAFF

A medical school ensures ready access to well-maintained library resources sufficient in breadth of holdings and technology to support its educational and other missions. Library services are supervised by a professional staff that is familiar with regional and national information resources and data systems and is responsive to the needs of the medical students, faculty members, and others associated with the medical education program.

Requirement 5.8-1
The medical school ensures ready access to well-maintained library resources sufficient in breadth of holdings and technology to support its educational and other missions.

Analysis of evidence for requirement 5.8-1

The evidence presented describes a robust library with access to extensive resources and with collaborative relationships with other medical school libraries. The ISA data provides additional support that the library is an excellent and effective resource.

Although the library is mainly moving towards digital resources, the ISA indicates that the space provided by the library remains key and should be reserved for the intended purpose of quiet studying and scholarship. The ISA does indicate that students have difficulty accessing comparable space when on clinical rotations away from the Foothills Campus.

Requirement 5.8-2
Library services are supervised by a professional staff that is familiar with regional and national information resources and data systems.

Analysis of evidence for requirement 5.8-2

The evidence provided supports the adherence to this requirement and that the library staff is qualified to support the needs of faculty and students.

Requirement 5.8-3
Library professional staff is/are responsive to the needs of the:
> i. *medical students*
> ii. *faculty members*
> iii. *others associated with the medical education program*

Analysis of evidence for requirement 5.8-3

The evidence provided demonstrates that the library staff are responsive and involved with students, faculty, clinical faculty and others, supporting inquiries, library technology, scholarship and research.

5.9 INFORMATION TECHNOLOGY RESOURCES / STAFF

A medical school ensures access to well-maintained information technology resources sufficient in scope to support its educational and other missions. The information technology staff serving a medical education program has sufficient expertise to fulfill its responsibilities and is responsive to the needs of the medical students, faculty members, and others associated with the medical education program.

Requirement 5.9-1
The medical school ensures access to well-maintained information technology resources sufficient in scope to support its educational and other missions.

Analysis of evidence for requirement 5.9-1

The UME program has demonstrated access to well-maintained information technology resources sufficient in scope to support its educational and other missions.

Embedded IT resources are effective in supporting the program's success, with a focus on local initiatives/infrastructure and support. There is also main UCIT campus support to ensure that there are campus-wide initiatives that are supported.

The MD program has many online learning resources, support, and initiatives that have proven to be very well-received based on the overwhelming positive student feedback over multiple years.

Requirement 5.9-2
The information technology staff serving a medical education program has sufficient expertise to fulfill its responsibilities.

Analysis of evidence for requirement 5.9-2

The UME Academic Technologies (AT) team has demonstrated nationally recognized expertise to support the program. The UME program's IT framework of governance, support, continuous development, integration and ongoing application monitoring is instrumental to program and student support.

Requirement 5.9-3
The information technology staff serving a medical education program is responsive to the needs of the:
       i.   *medical students*
       ii.   *faculty members*
       iii.   *others associated with the medical education program*

Analysis of evidence for requirement 5.9-3

The UME program's AT team has demonstrated they are responsive to the needs of medical students, faculty members and others associated with the medical program through the many supports they have provided/created.

5.10 RESOURCES USED BY TRANSFER / VISITING STUDENTS

The resources used by a medical school to accommodate any visiting and transfer medical students in its medical education program do not significantly diminish the resources available to already enroled medical students.

Requirement 5.10-1
The resources used by the medical school to accommodate any visiting and transfer medical students in its medical education program do not significantly diminish the resources available to already enroled medical students.

Analysis of evidence for requirement 5.10-1

There were no visiting elective students from March 2020-July 2023 due to restrictions related to the COVID 19 pandemic; this was done in coordination with other CACMS accredited schools. Table 5.10-1 B notes only one transfer student in the past three years.

There is a clear description of the process regarding the potential impact of visiting and transfer students on already enrolled medical students. Visiting students are permitted on rotations where their presence does not compromise the educational experience of those enrolled at the CSM. Transfer students are rare and only accepted into Year 3 after an assessment of capacity to accept.

5.11 STUDY / LOUNGE / STORAGE SPACE / CALL ROOMS

A medical school ensures that its medical students have, at each campus and affiliated clinical site, adequate study space, lounge areas, personal lockers or other secure storage facilities, and secure call rooms if students are required to participate in late night or overnight clinical learning experiences.

Requirement 5.11-1
The medical school ensures that its medical students have, at each campus and affiliated clinical site, adequate study space.

Analysis of evidence for requirement 5.11-1

The medical school has several areas for students to study in including the library, several classrooms that could be booked, the Indigenous hub, the atriums, as well as the two student lounges. Three of the five hospitals in Calgary have a library that students have access to 24 hours a day and could study there if desired.

Requirement 5.11-2
The medical school ensures that its medical students have, at each campus and affiliated clinical site, adequate lounge areas.

Analysis of evidence for requirement 5.11-2

The medical school, located in the Health Sciences Centre, has significant lounge space with both the Feasby lounge as well as the newly opened Interprofessional Learner Lounge. Medical students also have access to resident and physician lounges at each of the five hospitals.

Significant concern was raised in the ISA regarding the Interprofessional Learner Lounge (IPLL) regarding both the delay in opening as well as the degree of inclusiveness permitted when the lounge was indeed opened. The delay in opening was attributed to the COVID-19 pandemic, where there were manpower as well as raw material concerns. Final inspections were also a barrier which delayed the opening by several months. The noted delays, as well as the goal for an inclusive environment, has been addressed in the DCI. Students voiced concerns in the ISA regarding the desire to have an exclusive medical student only lounge. The DCI noted that this second lounge was meant to serve the entire student body, and be inclusive and welcoming to all CSM students. As specified in the Okanogan charter, as well as the CSM Strategic Plan, the objectives of inclusiveness, openness, and a welcoming environment to all students, regardless of their area of study, was the goal when deciding to open the InterProfessional Learner Lounge to all learners.

Requirement 5.11-3
The medical school ensures that its medical students have, at each campus and affiliated clinical site, adequate personal lockers or other secure storage facilities.

Analysis of evidence for requirement 5.11-3

Personal lockers were noted to be available to all students with specific locations identified in the DCI. The ISA indicates that students may not have been aware of the location of the lockers and initiatives are in place to increase awareness.

Requirement 5.11-4
The medical school ensures that its medical students have, at each campus and affiliated clinical site, adequate and secure call rooms if students are required to participate in late-night or overnight clinical learning experiences.

<u>Analysis of evidence for requirement 5.11-4</u>

It is specified in the DCI that if a call room is not available for a clinical clerk, they must be permitted to leave work no later than 11:00 PM.

5.12 REQUIRED NOTIFICATIONS TO THE CACMS

A medical school is required to notify* the CACMS in any of the following circumstances:

     a) *changes in enrollment, student distribution and/or the resources to support the educational program;*
     b) *creation of a new or expansion of a campus;*
     c) *changes in curriculum;*
     d) *changes in program delivery at an existing campus;*
     e) *changes in governance or ownership.*

*Details regarding the notification are found in the CACMS Rules of Procedure.

Requirement 5.12-1
The medical school is required to notify* the CACMS in any of the following circumstances:

     a) *changes in enrollment, student distribution and/or the resources to support the educational program*
     b) *creation of a new or expansion of a campus*
     c) *changes in curriculum*
     d) *changes in program delivery at an existing campus*
     e) *changes in governance or ownership*

Analysis of evidence for requirement 5.12-1

The medical school is fully compliant with this notification requirement. Since the 2016 accreditation the medical school has notified CACMS regarding several changes, as noted below.

a. Changes in enrollment, student distribution and/or the resources to support the educational program - submitted June 15, 2023 and CACMS response Oct 13, 2023 (Appendices 5.12-1 A3 and 5.12-1 A4)
b. Creation of a new or expansion of a campus - submitted June 15, 2023 and CACMS response Oct 13, 2023 (Appendices 5.12-1 A3 and 5.12-1 A4)
c. Changes in curriculum submitted June 27, 2022 and CACMS response Sept 26, 2022 (Appendices 5.12-1 A1 and 5.12-1 A2)