SUPPORT FOR UNMATCHED CANADIAN MEDICAL STUDENTS

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POSITION PAPER: SUPPORT FOR UNMATCHED CANADIAN MEDICAL STUDENTS

Policy Area
Medical student affairs

Problem History
The number of residency positions available to Canadian medical students depends on a complex system of government, education, and health care policies. Postgraduate medical education is funded by provincial governments, hosted by universities, and delivered by hospitals and clinics. The ratio of available residency positions to Canadian medical students has declined steadily since 2009. In 2017 there were 1.010 residency positions available for every 1 applicant in the first round of the Canadian PGY-1 matching process and even fewer when language and eligibility criteria are considered. As the available spots have reduced, the number of unmatched medical students has increased. The unmatched rate climbed to a high of 2.4% of participants (n=68) remaining unmatched after the second iteration in 2017. Currently, programs of support for unmatched medical students are designed in an ad-hoc manner and vary highly across Canada. Further background about the unmatched problem can be found in Appendix I.

Position Statement
On the matter of the support of unmatched students at Canadian medical schools, the Canadian Federation of Medical Students (CFMS) endorses the following principles:

1. Unmatched graduates of Canadian medical schools are an inappropriate outcome of the match process
2. For every 100 Canadian medical student applicants there should be 120 residency spots, as per the Canadian Medical Association (CMA) recommendation
3. Every Canadian medical school must develop deliberate and well-considered policies to support unmatched medical students

Recommendations
The CFMS has compiled recommendations for Canadian medical schools to support their unmatched students. More exhaustive explanations of these recommendations and their rationale can be found in Appendix I.

1. Adopt a standardized extension of clerkship curriculum open to all medical students who remain unmatched after the second iteration of the PGY 1 residency match in their graduating year.
2. Provide better education and awareness about both preventable and non-preventable red flags to students throughout their four years of medical school with increased emphasis in the final year.
3. Offer comprehensive wellness and mental health resources and supports to any student who remains unmatched following the residency match.
4. Provide personalized career planning resources to unmatched medical students
5. Extend student status to all unmatched students entering the extended clerkship curriculum to ensure student loans do not go into repayment during the unmatched cycle
6. Extend student status to all unmatched students entering the extended clerkship curriculum to ensure that provincial medical associations officially extend their insurance coverage for unmatched students.

7. Postgraduate programs provide feedback to unmatched students to help them better understand the reasons for going unmatched and to allow them to improve for future residency matches.

8. Explore development of an unmatched student network

**Accountability Statement**

The Board and the membership of the CFMS is responsible for advocating on the matter of unmatched medical student to our partners in the medical education community including: commercial banks, provincial medical associations, medical regulatory authorities, and individual medical schools. The VP Education of the CFMS is particularly responsible for this effort and for working with national stakeholders such as the Association of Faculties of Medicine of Canada to develop well-designed policy.
APPENDIX I: SUPPORT FOR UNMATCHED CANADIAN MEDICAL STUDENTS

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Introduction
A total 114 Canadian medical school graduates (previous years and this year combined) who entered both rounds of the residency match left without a position in 2017 (this figure does not include the 31 students who also went unmatched after the first iteration and did not participate in the second iteration). On the day that this paper will be heard on the floor of the Canadian Federation of Medical Students (CFMS) Annual General Meeting, well over 100 of our classmates who have given their time and energy to become physicians have been pushed to the margins of the profession by an education system rife with inefficiencies. The goal of this paper is to advocate, on behalf of these students, for a Canadian medical school system that adequately supports its own. The CFMS considers these supports to be an inherent duty of Canadian medical schools.

This paper takes a multifaceted approach to providing support for unmatched Canadian medical graduates (CMGs) centred around career planning, curriculum standardization, and mental health supports. This holistic approach has been developed based on the appraisal of policies from Canadian medical schools for unmatched medical students, publications of the Association of Faculties of Medicine of Canada (AFMC) and Council of Ontario Faculties of Medicine (COFM), Canadian Residency Matching Service (CaRMS) publications, and a report collected from CaRMS based on a data request submitted by the CFMS to CaRMS in 2017.

The Problem
Many factors have contributed to the current problem of unmatched medical students. While applicant factors may play a role, the CFMS argues that the single largest contributing factor is a scarcity of residency positions.

Lack of Positions
The process of matching students to these residency positions is carried out by the Canadian Resident Matching Service (CaRMS) based on policies designed by the Association of Faculties of
Medicine of Canada (AFMC). CaRMS is a non-profit organization that stewards the data of applicants to residency positions in Canada and hosts the Nobel Prize winning Roth-Peranson algorithm designed to match medical students to their postgraduate training program of choice. The service aims to match every Canadian Medical Graduate (CMG) with a postgraduate training position. However, ultimately, the final match rate depends largely on the choices medical students, the choices of the residency programs, and the number of positions available.

The number of residency positions available to Canadian medical students depends on a complex system of governmental, educational, and health care policies. Postgraduate training positions are funded by provincial governments, hosted by universities, and delivered by hospitals and clinics. Based on CaRMS data,\textsuperscript{1-3} the ratio of available residency positions for Canadian medical students has declined significantly since 2009 (see Figure 1). In 2017, there were 1.010 residency positions designated for every 1 graduate of a Canadian medical school. \textit{When migration out of Quebec is accounted for, the ratio of available anglophone positions to applicants may actually drop to 0.986 spots for every one participant in the first iteration of the match.}\textsuperscript{1-4} With margins of error this tight, the current crisis of unmatched Canadian medical school graduates should come as no surprise to any policy maker.\textsuperscript{5}

Data from the 2017 residency match indicates the postgraduate training programs left as many as 5.9\% of students unmatched after the first iteration of the residency match, with 49.3\% of these students remaining unmatched following the second iteration.\textsuperscript{1-3} The overall number of unmatched medical students has been increasing over the past seven years (Figure 3), reaching a high of 2.4\% of participants (n=68) remaining unmatched after the second iteration in 2017. This rise in unmatched CMGs comes at a time when Canadian medical students are ranking an ever-higher number of programs in their CaRMS rank order list (Figure 4). The United States, which uses a similar residency matching system but has a significantly greater ratio of positions to applicants, has not seen a similar increase in unmatched students over the same time period.\textsuperscript{6} Urgent action is necessary to prevent further suffering amongst graduates and further wasting of health care and medical education government funding.

The upward trend of unmatched CMGs (Figure 2) is a complex and multifactorial issue. Unpacking the unmatched crisis requires considering many factors including an increasing total number of participating in the match, provincial restrictions placed on the number of residency positions available to medical students,\textsuperscript{7} the total number of residency positions offered across the country among other factors (Figure 1). While considering the factors that lead to the upward unmatched trends necessitates discussion, \textit{this paper will focus primarily on supporting CMGs who remain unmatched following their initial year of participation in the residency match.}

Applicant Factors

In a 2015 forum on unmatched CMGs, CaRMS provided an analysis of the profiles of unmatched CMGs.\textsuperscript{8} This forum identified that the application strategies for unmatched students in any given year fell within one of the following categories:

1. Failing to have a “parallel plan” (i.e. only ranking one discipline)
2. Ranking less than 3 programs in the initial rank order list
3. Ranking a greater number and range of programs than the average student

The forum also identified two categories of “red flags,” that may indicate a student is at risk of going unmatched. “Non-preventable red flags” refer to factors that cannot be assessed or modified by applicants and “preventable red flags” include factors such as the quality of an applicant’s personal letter and/or CV, selection of electives and research projects relevant to specialty of choice, mismatched references, and missing documentation. In an analysis of the preventable and non-preventable red flags identified within the applications of unmatched CMGs, CaRMS reported that 88\% of the total number of
red flags qualified as preventable. Of these red flags, 43% were attributed to weak personal letters and/or CVs. However, many medical students do not fully understand the specifics of which red flags are preventable and how to prevent them. Furthermore, with the growing number of unmatched CMGs many more students are undergoing the harrowing experience of being unmatched with limited support. This experience has obvious psychological, financial and social impacts to the students and must be addressed.

The Consequences

Going unmatched has academic, financial, social, and emotional implications. Students can find themselves pushed out of their universities. They may be unable to complete clinical electives to keep up their clinical skills. Banks and governmental student loan agencies may no longer consider unmatched students to be students and may expect repayment of loans to begin. Students can lose contact with their friends and support system during the time in their lives when that system is most important. The tragic death of Dr. Robert Chu in 2016 exposed the gravity of the impact that going unmatched can have on a student. The CFMS asserts that Canadian medical schools have a responsibility to make a good faith and coordinated effort to prevent such a tragedy from occurring again.

Current Options Available to Unmatched CMGs

The following section will explore some of the options available to students based on policies outlined by Canadian medical schools. The data here is compiled from CFMS information requests and from policies reviews by the AFMC and COFM that have not yet been made public. For the schools where formal policies were not able to be obtained or do not exist, review of policies was done by consulting Medical Student Society Presidents through the CFMS Presidents’ Roundtable. Appraisal of various medical school policies was conducted by the authors of this paper after policies had been complied with the help of members of the CFMS President’s Roundtable and Education Committee.

As of the writing of this paper in 2017, we estimate that approximately 5 of Canada’s 17 medical schools do not yet have formal educational programs for unmatched graduates. Here we discuss existing formal programs from 10 of the remaining 12 medical schools in Canada.

Extension of Clerkship Curricula

Several Canadian schools have outlined extension of clerkship curricula available to final year medical students who remain unmatched after the second iteration of the match. While there are differences in what is offered by each school the foundation remains similar. Such programs tend to provide an additional year of clinical rotations with particular emphasis on career planning and research. Acceptance into the extension of clerkship program, at every school in which it is offered, is based on review by either a panel of faculty members or approval by the associate dean of undergraduate medical education. At the majority of schools where an extension of clerkship is offered as an option, students must have tried to match to a residency program during the second iteration of the CaRMS match, seeking interviews in a diverse range of specialties in the second round.

1. Clinical Rotations: Unmatched students are provided with an opportunity to complete additional clinical rotations, while priority for applications to clinical rotations is reserved for first time applicants.
2. Research: Initiation of a new research project, expected to result in a publication or conference presentation by the end of the extension of clerkship year.
3. Career Planning: Personalized planning for CaRMS application, including CV development, personal letter writing, review of program selection, and application strategy.
4. Reflection of why applicant went unmatched in their first match cycle and what they will do in order to match after their extension of clerkship.

Graduate Studies and Other Alternatives

Some schools do not offer an extension of clerkship option and unmatched students are encouraged to pursue graduate students (MPH, MMEd, or MBA), or pursue individual research projects or other interests. In some cases, in order to pursue clinical electives in their home province, students who are not formally enrolled in an extension of clerkship program must apply for a clinical trainee licence in order to be able to participate in clinical activities. Another option for unmatched students to consider is applying for residency positions in the United States. This would require studying for and writing the United States Medical Licensing Examinations (USMLEs). Writing these exams may also be beneficial for students hoping to pursue fellowship opportunities in the United States.

Position Statement

The culmination of undergraduate medical education is the matching process. Undoubtedly, the residency programs that physicians attend have significant impact on personal development, career trajectory, and future opportunities. Navigating the residency application, selection, and matching process successfully is important not only to medical students, but to faculty, medical schools and residency programs alike.

1. The CFMS asserts that unmatched graduates of Canadian medical schools are an inappropriate outcome of the match process
2. The CFMS supports the CMA policy recommendation that 120 residency spots exist for every 100 applicants.¹¹
3. The CFMS demands that all Canadian medical schools develop deliberate, well considered strategies and policies to support unmatched medical students

The responsibility to act on these principles falls on AFMC, Canadian medical schools, CaRMS, Canadian medical students, Canadian residency programs, and many other stakeholders in the Canadian medical education system, including but limited to Medical regulators, Certifying Colleges, governments and in practice physicians. As outlined in the recommendations below, all of these stakeholders play a key role and have a vested interest in ensuring a successful and equitable residency match.

Recommendations

The CFMS has compiled a list of recommendations for Canadian medical schools that have been made based on consultation with current and previous unmatched students. These recommendations stand as an invitation to medical education policy makers to collaborate with the CFMS and other student groups to ensure that unmatched students are fully supported.

Recommendation 1: Adopt a standardized extension of clerkship curriculum for all medical students who remain unmatched after the second iteration of CaRMS residency match in their graduating year.

Medical schools should aim to offer all unmatched applicants with the same opportunities in order to avoid putting students at one school at an advantage with greater access to career planning and clinical rotations. Limited requirements should be placed on unmatched students requesting to transition to the extended clerkship curriculum. These limits should include not mandating that unmatched students apply broadly in the second round to be accepted into the curriculum. Education on the options for unmatched students, including the extended curriculum, should begin early in the
medical curriculum and be re-emphasized during the match process. These standardized expectations should be included in the Committee on Accreditation of Canadian Medical Schools (CACMS) standards.

Recommendation 2: Provide better education and awareness about both preventable and non-preventable red flags to students throughout their four years of medical school, with increased emphasis in the final year.

More open communication about the number of residency positions and competitiveness of various specialties is required. Communication should be based upon official data released by CaRMS, provincial medical associations, and other groups with official ties and affiliations with the match process. Information from CaRMS regarding application red flags should be communicated clearly and made easily accessible to medical students from the earliest days of the medical education. Any medical student should be able to find out the mathematical likelihood of going unmatched to a given specialty after entering a tentative rank order list.

Recommendation 3: Offer comprehensive wellness and mental health resources and supports to any student who remains unmatched following the residency match.

The AFMC should outline a formal approach to mental health and wellness for unmatched students and individual medical schools should further define their approach through school policies in order to ensure follow through. Much like the kind of mentoring formalized for graduate students, these policies can include regular meetings and check-ins with the office of Student Affairs, counselling and student advising options. These may also include options available through the student health associations of each university, as well as options available through each provincial medical association (eg. physician health programs).

Recommendation 4: Provide personalized career planning resources to unmatched medical students

Each unmatched medical student should be provided multiple opportunities for individualized support. These programs should include professional support with: CV and personal letters; specialty selection; development of application portfolio (research, electives, networking, etc.). These programs may also include a reflective component of career development to provide students with a formal opportunity for self reflection; however, the expectation to reflect in a manner determined by the medical school should not be mandatory or come at the expense of the other school-provided career planning resources. Such programs should include information about the many non-clinical careers available to medical school graduates. The CFMS encourages Canadian medical schools to seek out such information in advance by, for example, creating partnerships with public service and medical technology companies.

Recommendation 5: Student status should be extended to all unmatched students entering the extended clerkship curriculum to ensure student loans do not go into repayment during the unmatched cycle.

Many students incur significant debt burden during their medical training. Although most loans offer a grace period, extending student status would ensure unmatched students are financially protected.
Recommendation 6: Student status should be extended to all unmatched students entering the extended clerkship curriculum to ensure that provincial medical associations that provide insurance to students should officially extend their coverage.

No medical student, matched or unmatched, should be unable to afford disability insurance, medications, or other forms of treatment. Provincial medical associations should ensure that unmatched students in extended clerkship curricula are covered by insurance and there should be no disqualifications for mental health concerns.

Recommendation 7: Postgraduate programs should provide feedback to unmatched students to help them better understand the reasons for going unmatched and to allow them to improve for future residency matches.

Medical students are entitled to their personal information (see Appendix II). For unmatched learners who are interested, feedback should be given on each area of a student’s application, such as their personal letter, reference letters, MSPR, CV, CASPer score, and interview performance. The CFMS Prospectus: Feedback to Unmatched Canadian Medical Graduates (Appendix II) provides an initial framework for what information should be included in an Unmatched Report. The CFMS recognizes that there will be many obstacles to creating the framework for an Unmatched Report. For example, reference letters may be confidential between the student and referee. Therefore, we recognize that compromises may have to be reached such as residency programs aggregating the reference letter score when providing feedback.

Recommendation 8: Explore development of an unmatched student network

The Offices of Student Affairs at Canadian medical schools should consider offering to connect unmatched medical students with their peers. The CFMS continues to field an increasing number of requests from unmatched students to be put into contact with their peers. While the CFMS has created an informal network of unmatched students, we encourage the AFMC and Canadian medical schools to consider how to best create new networks of peer support when an unmatched student’s social current network moves on to residency.

Conclusions

Unmatched learners—of whom there are far too many—face significant challenges when they try to re-enter the match process. Canadian medical schools have a responsibility to provide support to their unmatched students. This position paper serves as an invitation to the entire medical education community to collaborate with the CFMS in ensuring that medical students are well supported from the first day of medical school to the first day of residency training,
Figures

Figure 1. Ratio of graduates to spots as calculated by CFMS. Total participants include CMG applicants (current and previously graduated) & USMG applicants (current and previous year). Total participants does not include IMG participants applying to open competition spots. Synthesized from CFMS data request, AFMC data, and CaRMS data.\textsuperscript{1,2,4}

Figure 2. Adapted from the 2017 CCME CaRMS Forum: R-1 Main Residency Match Outcomes and Insights.\textsuperscript{1}
Unmatched current year CMGs after second iteration (2007-2017)

Figure 3. Adapted from the 2017 CCME CaRMS Forum: R-1 Main Residency Match Outcomes and Insights.¹

Number of programs ranked by matched and unmatched applicants (2009-2016)

Figure 4. Number of programs ranked. Synthesized from CFMS data request.²

References

10. Woods A. Tragic case of Robert Chu shows plight of Canadian medical school grads. Toronto Star: June 17th, 2017
APPENDIX II: CFMS PROSPECTUS TO AFMC ON FEEDBACK TO UNMATCHED CANADIAN MEDICAL GRADUATES

Note: this prospectus was submitted to the AFMC Residency Matching Committee in July, 2017

Purpose
The uncertainty facing a medical student who goes unmatched can be overwhelming. This prospectus from the Canadian Federation of Medical Students (CFMS) to the Association of Faculties of Medicine of Canada (AFMC) Postgraduate Education Committee and Canadian Residency Matching Service (CaRMS) proposes an approach to providing feedback to learners who go unmatched in both rounds of the PGY-1 match.

Background
Canadian medical students have begun to experience the unfortunate consequences of the increasing scarcity of residency positions. The ratio of available spots to applicants has decreased from 1.11 to 1.02 since 2008. The percentage of unmatched Canadian medical students has increased from 0.5% to 2.4% since 2008. This year, 68 students were not matched to any program despite completing two rounds of the matching process. A fully qualified Canadian medical graduate not matching to a residency training position represents a failure of the medical education system. Once unmatched, these students need significant support should they choose to re-attempt to enter the postgraduate education system.

Two recent cases suggest that providing feedback to students who go unmatched may be a crucial component in their decision-making process. First, it appears that students may have legal grounds to information about their rank and score based on Order P0-3491 to the Ontario Information and Privacy Commissioner in 2015. This precedent for learner ownership of their data may well be applicable to learners and programs across Canada. Second, feedback to unmatched medical students may be critical to the wellbeing of these students. The need for feedback to unmatched students was underscored by the tragic death of Dr. Robert Chu in 2016 who had submitted multiple requests for such information about his applications after going unmatched. Indeed, according to Dr. Chu, the stress of not knowing the status of his previous applications caused him harm. This uncertainty must be considered a contributing factor to his tragic passing. We make this proposal to the AFMC on behalf of all Canadian medical students present and future and with the permission of Dr. Chu’s family.

Proposal
The Canadian Federation of Medical Students proposes that the Association of Faculties of Medicine of Canada, the Canadian Residency Matching Service, and the postgraduate residency programs across Canada collaborate with the CFMS to develop a means of securely delivering feedback to unmatched medical students through the CaRMS portal. The following suggestions would produce an ‘unmatched report’ released securely through the CaRMS portal to students who do not match after the second round of each year. We feel it is important to note that the option to request an ‘unmatched report’ will only be available to unmatched Canadian medical school graduates and not to matched students who wish to investigate their match result or to international medical graduates. We suggest that the Unmatched Report contain multiple items as listed below. The nature of this report will certainly shift as the CFMS, AFMC, CaRMS, and the program directors collaborate on its refinement.
Logistic component:
- Option for an unmatched student to choose to request a report after the second iteration

Possible Data components:
- Data from CaRMS about trajectory of previously unmatched student (ex. ~99.4% of applicants match within subsequent application)
- Whether or not the student’s application was ranked by each program
- Which programs the student could have matched to but did not rank
- The rank of the student’s application (in all applied schools & programs)
- The number of rank positions the applicant was from being matched (in all applied schools & programs)
- Composite scores on various sections of the application (ex. reference letters, research, MSPR, CV, and interview) displayed by percent difference from lowest matched applicant

Possible Narrative components:
- Aggregated narrative feedback to student explaining the ranking and recommended steps to improve application
  - Produced via anonymized survey sent to program directors asking to provide feedback on such questions as:
    - If nothing changes in this student’s application would you consider ranking them in future applications?
    - Would you recommend that this candidate continue to pursue practice in your specialty?
    - What part of their career should the applicant prioritize in further attempts?

Each of these components are still to be decided and would be left to the discretion of individual programs. That said, each of these components have been selectively chosen based on the experience of the CFMS in discussion with many previously unmatched students, including Dr. Chu and his family. That said, as this collaboration develops, the nature and components of the Unmatched Report may well change to accommodate unanticipated system factors. Before discounting or excluding any of these options to include in the report we feel it would be prudent to pilot one such report and evaluate the utility of such date after seeing it synthesized and compiled.

Predication of Labor Cost
In the 2017 match, 21 of the 68 unmatched students in the second round only applied to a single program in a single specialty. The CFMS acknowledges that the labor costs of providing feedback to unmatched students is not insignificant; history has shown the entire medical education community that the risks of uncertainty for students may far outweigh the labor costs. As this process progresses, CaRMS will be able to provide more detailed data on the potential number of requests that might be expected for each program to more accurately anticipate the labor costs.

Collaborations
After consultation with multiple stakeholders about this prospectus, it has become clear that other parties may be interested in such information. For that reason, a student who is provided an unmatched report would have the opportunity to securely share their report with members of the Deanery such as Student Affairs Deans if they desired to do so.
Conclusions
The CFMS appreciates the work of the AFMC, CaRMS, and the residency program directors in considering our proposal. Thanks especially to Mr. John Gallinger, Dr. Glen Bandiera, Dr. Janette MacMillan, Dr. Mel Lewis, Dr. Sarita Verma, Dr. Chris Watling, and the Council of Ontario Faculties of Medicine (COFM) postgraduate Deans for their time in helping to refine this prospectus. This effort to provide feedback to unmatched students is a serious matter around which the best collaborative efforts of the entire Canadian medical education community should be focused.

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