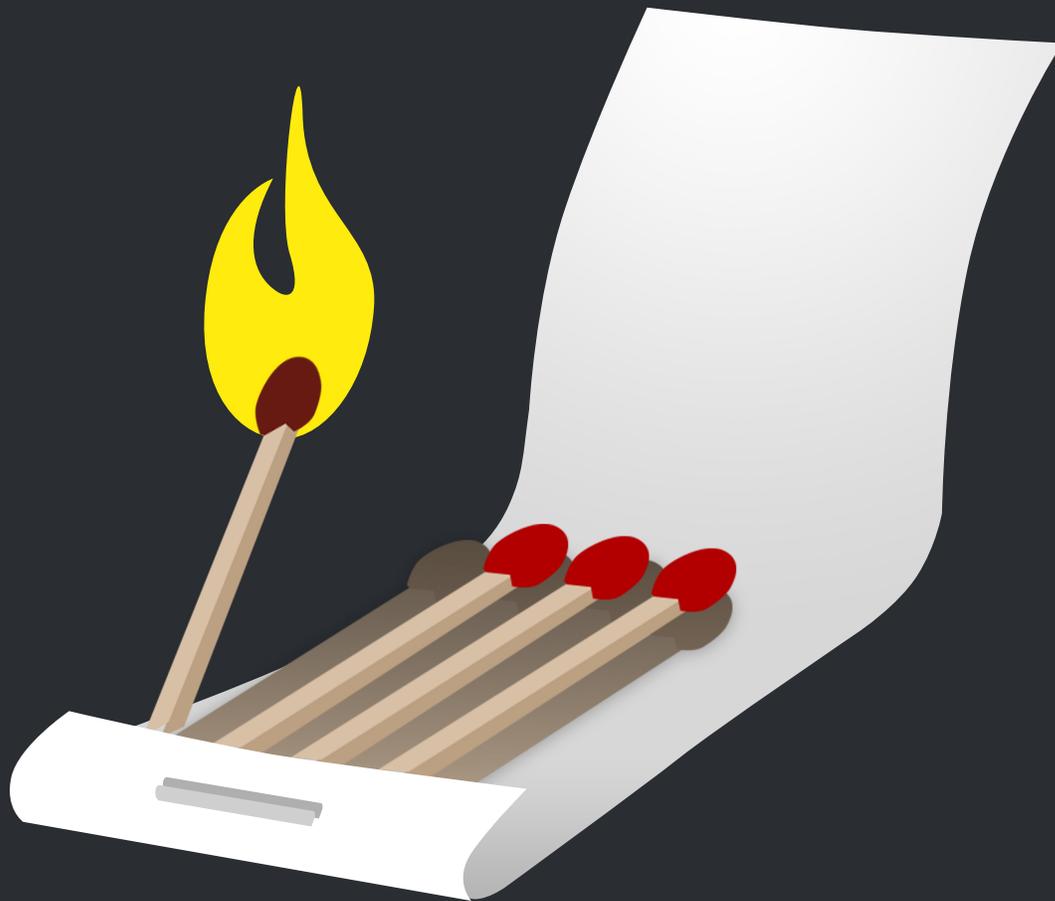


*the 2017-18*

# MATCH BOOK

*a guide written by medical  
students to help prepare  
you for the **Canadian**  
residency match*



River Jiang  
Sheliza Halani  
*Editors*



**Canadian Federation of Medical Students**  
Fédération des étudiants et des  
étudiantes en médecine du Canada

## **Produced and distributed by Canadian Federation of Medical Students**

Editors: River Jiang, Sheliza Halani

Publications File, Education Committee, Canadian Federation of Medical Students

Special thanks to CaRMS, whose website provided important contents for this publication.

Special thanks also to Tavis Apramian (Vice-President Education Committee) and Maylynn Ding (Vice-Chair Education Committee) for their work in editing.

2017 Edition, © 2017

CFMS Match Book

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The CFMS has made every attempt to ensure the accuracy of data presented herein; however, absolute accuracy cannot be guaranteed.

The tips from residents presented in this publication were not collected systematically. They reflect personal opinions and do not represent the views of any organization. Readers should use his or her judgment in this regard. The CFMS is not responsible for any consequence resulting from readers' actions based on these tips.

# The 2017–18 CFMS Match Book



## The Match Process

How does the match algorithm work? What about couples matching? Going unmatched?



## Dates and Milestones

What are the key dates for the 2017–2018 CaRMS first and second iterations?



## Statistics

The CFMS Match Book analysis of last year's CaRMS R-1 match statistics



## Tips from Residents

Tips and tricks from medical students who have survived the process, collected by the CFMS



## Additional Content

CFMS Global Advocacy Program health and human rights pocket cards, financial management, and our generous sponsors

## Message from the Match Book editors

The Match Book, created in 2008 and currently in its 10th edition, is a publication from the Canadian Federation of Medical Students (CFMS), and aims to be a student-written resource for Canadian medical students entering the confusing and sometimes overwhelming process of the Canadian Resident Matching Service (CaRMS).

We will cover here an overview of how the Canadian residency match process works, statistics from previous matches, and practical tips provided by the thousands of medical students that have gone through the process recent years. The Match Book provides an overview of the major steps involved and aids Canadian medical students at various stages of training in planning their strategy for matching to their preferred programs.

This edition was the second to seek sponsorships to aid with distribution. We are grateful to Medskl and the Canadian Society of Internal Medicine for their generous support. Thank you to all the respondents of our survey for providing valuable insight for future CaRMS applicants. Thank you to Usman Khan (CFMS VP Communications) for the distribution of this survey. A survey related to electives was also sent out via Han Yan (CFMS VP Student Affairs), and we would like to thank her for the contributions of that survey to this Match Book. We would like to thank the members of the CFMS Education Committee; Tavis Apramian (current Vice-President Education) and Nebras Warsi (past CFMS Vice-President Education), Maylynn Ding (current Vice-Chair CFMS Education Committee) for her hard work with editing; and finally, CFMS members at large for their contributions in the advancement of this annual publication. We also thank previous editors for their tremendous work in reviewing and revising the Match Book, as well as CaRMS, who have graciously collaborated with us throughout the years. Last but not least, we extend our appreciations toward recently graduated students, student interest groups and numerous other individuals.

The CFMS Education Committee was created in 2014 and is responsible for the CFMS Education Portfolio, which comprises several active projects including the Match Book. Any CFMS member interested in editing future editions of the Match Book is advised to apply for the CFMS Education Committee in Fall 2017. Any questions should be addressed to the CFMS Vice-President Education ([vpeducation@cfms.org](mailto:vpeducation@cfms.org)).

Sincerely,



Sheliza Halani  
Class of 2018  
University of Toronto



River Jiang  
Class of 2018  
McMaster University

## Message from the CFMS

Dear Medical Students,

The Canadian Federation of Medical Students (CFMS) is proud to publish the 2017 iteration of the CFMS Match Book. The letter you read here and the Match Book that follows has undergone significant development during the tenures of my predecessors, Irfan Kherani and Nebras Warsi. This year's Match Book is no exception, and it will be making the leap to a purely online version. On behalf of all Canadian medical students, the CFMS wishes to thank River Jiang, Sheliza Halani, and Maylynn Ding for leading on this initiative this year. River and Sheliza put in an incredible effort to revitalize the quotes in this year's Match Book. The quotes they collected and collated are pithy reminders and teachings from the students who came before us. Thanks to River and Sheliza for collecting them and I hope you enjoy learning from them!

The CFMS was founded in 1977 in response to the recognized need for a national unifying body for medical students to better advocate for medical student interests. Our membership has since grown to more than 8000 students at 15 medical schools across Canada. Now, after 40 years, it is our mission to connect, support, and represent our membership. As future physicians, we also advocate for the best health for all members of society.

The CFMS **connects** Canadian medical students and we seek to engage with our student members. Our cornerstone is [www.cfms.org](http://www.cfms.org)—the online home of CFMS, available in both English and French. Beyond connecting members to the CFMS, we connect Canadian medical students with each other, through bi-annual meetings, numerous committees, programs and events. These student-to-student connections facilitate the sharing of local best practices across schools and create a sense of camaraderie among medical students.

The CFMS **supports** medical students with a wide variety of services and programs. We know our members value discounts as they undertake costly medical training, and our discounts program includes disability insurance, laser eye surgery, hotels, medical apps for smartphones and more. Finally, in recent years we have taken a renewed focus in supporting the wellness of our members, via wellness resources, a wellness member survey, and advocacy efforts.

The CFMS **represents** our membership at multiple forums. We provide the Canadian medical student perspective to our sister medical organizations, government and other partners that are helping to shape the future of medical education, medical practice, and health care. Within Canada, we are proud of our work in medical education on projects such as the *Future of Medical Education in Canada*, The Royal College's *CanMEDS Consortium*, and the *AFMC Student Portal*.

The activities of the CFMS are diverse, relevant and member-driven. We are committed to serving our members through our vision of tomorrow's physicians, leading for health today. The CFMS recognizes the immense amount of energy and time that all medical students devote to their future

and are excited to continue supporting the development of this publication. We hope that the information contained will help in planning your transition to residency.

Best wishes,



Tavis Apramian  
Vice-President Education  
Canadian Federation of Medical Students

## Message from the AFMC

Dear medical students:

The process of career decision making and the match into residency is a crucial step in every medical student's life. The Association of Faculties of Medicine of Canada (AFMC) is proud to provide you with career counseling online tools, such as the [Myth Buster video clips](#), developed with faculty leaders from across the country to help you make these important decisions.

In order to improve the match process, we have also created the AFMC Resident Matching (ARM) Committee, whose membership includes deans, postgrad deans, undergrad deans, student affairs deans, as well as representatives from the Canadian Federation of Medical Students (CFMS), the Fédération médicale étudiante du Québec (FMEQ), Resident Doctors of Canada, and the Fédération des médecins résidents du Québec (FMRQ) and the Canadian Resident Matching Service. The ARM Committee is focused on better understanding match results, decreasing the number of unmatched Canadian medical graduates, implementing the best practices, policies, and processes used by resident program selection committees. I look forward to receiving any feedback you may have. Please do let us know how else we can help support you.

Sincerely,



Geneviève Moineau, MD, FRCPC  
President and CEO  
Association of Faculties of Medicine of Canada

## Message from the Canadian Residency Matching Service

As you near the end of your career as a medical student and get ready to enter a new phase of your medical education, you likely already know that the Canadian Resident Matching Service (CaRMS) will be an important step along your journey to practicing medicine in Canada. CaRMS was created in 1969 at the request of medical students seeking an independent entity to facilitate the application and match process. Forty-eight years later, our goal remains the same: to run a fair, objective and transparent application and matching service to provide medical students with the best possible outcomes.

The establishment of selection criteria and the processes governing Canadian residency matches is the responsibility of the provincial ministries of health, faculties of medicine and their programs; CaRMS' role in is to facilitate a process that matches as many students as possible to their career choice within the policy framework we are provided. To this end, we work in close cooperation with governments, regulatory bodies and faculties, as well as medical students and their representative organizations (like the CFMS) to match more than 3,500 applicants each year through four residency matches: R-1 Main Residency Match, Family Medicine/Emergency Medicine Match, Medicine Subspecialty Match and Pediatric Subspecialty Match.

The R-1 Main Residency Match (R-1 match) for entry-level post-graduate positions is CaRMS' largest match, encompassing all 17 Canadian medical schools. We understand that the residency and application process is an important stage in your career, and CaRMS is committed to supporting students every step of the way. Our application platform, CaRMS Online, centralizes and simplifies the application process, and our dedicated, bilingual client service representatives and help resources will make sure that you have the assistance you require throughout your match year.

The 2017 R-1 match saw 3,214 graduating students and physicians matched to residency programs in Canada, ready to begin their postgraduate training on July 1, 2017. Of these, 2,714 current year Canadian medical graduates were matched—a match rate of 96.5%. The majority (57.1%) matched to their first-choice rank, and 87.4% matched to their first-choice discipline.

Beyond the nuts and bolts of the application process, we know you have some important decisions to make. Match data can be a helpful input into your decision-making processes, showing shifts in supply and demand in various disciplines and other interesting multi-year trends. For detailed match statistics, including regional and language-specific data, we invite you to take a look through the [2017 CaRMS Forum presentation](#) and the full [R-1 match reports](#) on our website. You can also dig into 10 years of match data by discipline using our [interactive R-1 match tool](#).

We wish you the very best in your match year. And if you have a question about the match process, reach out to us any time at [help@carms.ca](mailto:help@carms.ca) – we're here to help.

Sincerely,



John Gallinger  
CEO  
CaRMS



Dr. Janice Willett  
Chair  
CaRMS Board of Directors

# 1. THE MATCH PROCESS

## Overview

The **CaRMS R-1 match process** allows applicants to decide where to train and Program Directors to decide which applicants they wish to enrol in postgraduate medical training.

The R-1 match is the largest match program that is offered through CaRMS, and students from all 17 medical schools in Canada as well as eligible students from the US and international medical students (IMGs) with no prior postgraduate training in Canada or the US participate in the match. It is offered in two iterations, where positions and applicants that were not matched in the first iteration can participate again in the second round for another opportunity at a match.

Once matched, applicants are legally bound to attend the residency program and programs are legally bound to accept applicants. Visit <http://www.carms.ca/en/match-process/your-application/your-carms-contract/> for more information about this contract.

## Match Algorithm

CaRMS uses the **Roth-Peranson algorithm**<sup>1</sup> to match students into postgraduate medical training programs throughout Canada. This is roughly the same matching algorithm that is used in the United States for their National Resident Matching Program (NRMP), as well as for matches in many other programs including law, dentistry, psychology, optometry, and pharmacy.

We will cover here a brief history of the matching algorithm and how it works. We will also run through how an example match works, and some practical tips about how to rank residency programs. The algorithm used today by CaRMS is slightly more complicated than what we present here because it must deal with several complications including couples matching, but we hope that our simplified example here helps with understanding how the process works.

Interestingly, the work that went into this algorithm won the Nobel Prize in Economics in 2012 for Alvin Roth (Harvard University) and Lloyd Shapley (UCLA). Their work was pioneering because unlike with traditional markets, where prices can be adjusted so that supply meets

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<sup>1</sup> Resources:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3399603/>

<https://www.simonsfoundation.org/2010/09/24/playing-with-matches/>

[https://www.nobelprize.org/nobel\\_prizes/economic-sciences/laureates/2012/popular-economicsciences2012.pdf](https://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2012/popular-economicsciences2012.pdf)

<https://www.natmatch.com/matchingprogram.html>

<https://www.carms.ca/en/residency/match-algorithm/>

demand, cases like residency matching provide a special challenge because prices cannot be used at all to allocate the limited resources of residency spots or graduating medical students.

In the early 1900s, residency matching in the US worked roughly the same way as traditional job offers. This presented a problem, however, because with the scarcity of promising medical students, hospital would make offers for residency spots increasingly early — often before students had enough time to decide where their interests lie in medicine. And with medical students often rejecting residency offers, hospitals would give “exploding” job offers, which had extremely short expiration dates.

Lloyd Shapley and David Gale developed a “deferred acceptance” algorithm in their theoretical work in game theory whereby applicants take turns applying to programs of their choice, making “tentative matches”, and programs will take their most preferred applicant who matched to them. Importantly, they showed that such an algorithm would always result in stable matches. That is, after the final match, there would be no switches of an applicant to another program that would be preferable to both sides. Moreover, the deferred acceptance algorithm is one-sided. Whichever side proposes first (the students or the programs) has an overall advantage in terms of how likely they are to obtain their top choice matches.

In the 1950s, the residency matching program in the US brought in the economist Alvin Roth and Elliot Peranson to help with their matching algorithm. Roth discovered that the algorithm that the NRMP was using was very similar to the “deferred acceptance” algorithm that Shapley and Gale had developed. They helped develop the algorithm further and adapt it for some special conditions, including couples matching.

## How does it work?

The match algorithm compares rank-order-lists (ROLs) submitted to CaRMS by applicants and programs and matches applicants to programs based on both parties’ stated preferences. ROLs submitted by applicants indicate a list of programs where they wish to train ranked in order of preference. Similarly, ROLs submitted by programs indicate a list of applicants they wish to train ranked in order of preference.

The algorithm is applicant-proposing, meaning it starts with an attempt to place an applicant into their most preferred program. In this way, the algorithm provides applicants with their best possible outcome based on the ROL submitted. At the end of the match process, each applicant is either matched to their most preferred choice possible from their ROL or all choices submitted by the applicant have been exhausted and they go unmatched.

Following the first iteration of the match, unmatched applicants can reassess their standing and apply to programs with unfilled positions in the second iteration. The same algorithm is applied to this second match.

Let's work through an example...

Imagine there are four applicants (Colleen, Mel, Cory, and Barb) and four residency programs (UBC, McMaster, Dalhousie, and NOSM), each with one position. The following is how the applicants and the programs have ranked each other:

1. Applicants and residency programs make their Rank Order Lists

- 1. UBC
- 2. McMaster
- 3. Dal
- 4. NOSM



Colleen



UBC

- 1. Colleen
- 2. Cory

- 1. NOSM
- 2. McMaster
- 3. UBC



Mel



McMaster

- 1. Colleen
- 2. Cory
- 3. Barb
- 4. Mel

- 1. UBC
- 2. McMaster



Cory



Dalhousie

- 1. Mel
- 2. Barb
- 3. Colleen

- 1. Dal
- 2. NOSM
- 3. UBC
- 4. McMaster



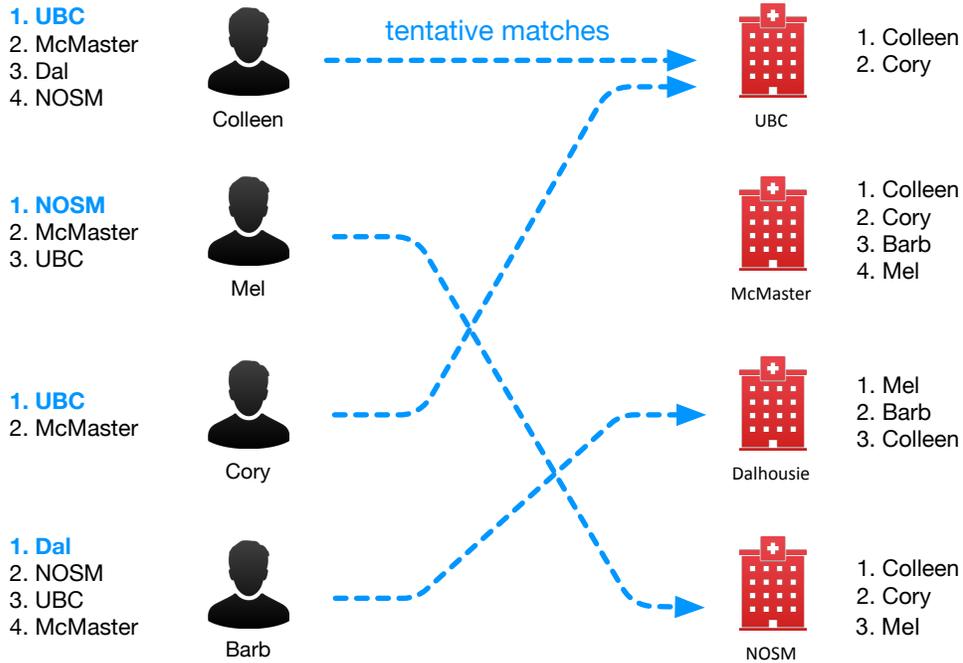
Barb



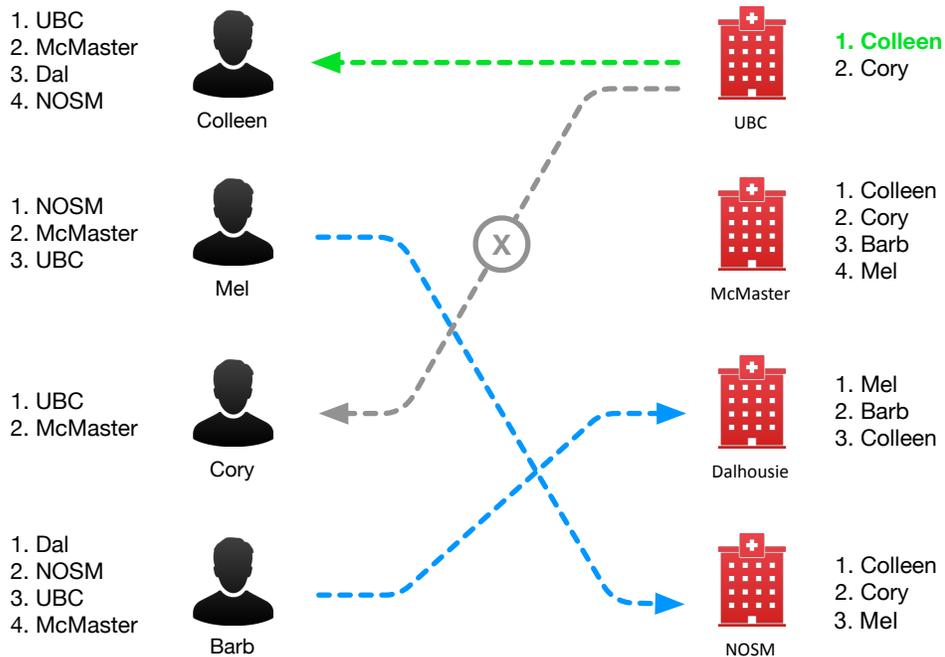
NOSM

- 1. Colleen
- 2. Cory
- 3. Mel

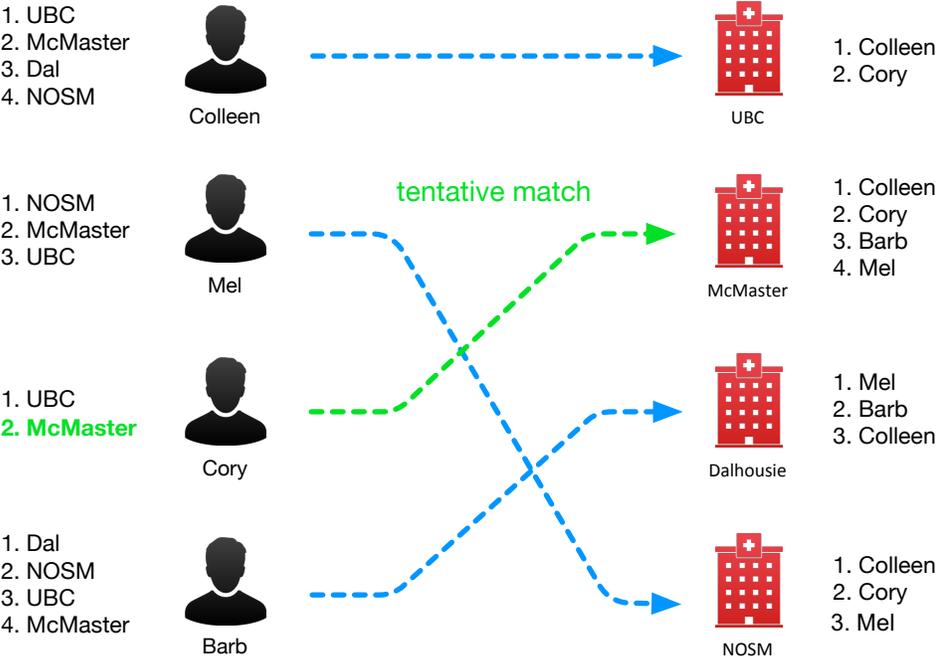
2. The algorithm attempts to match each candidate with their first choice



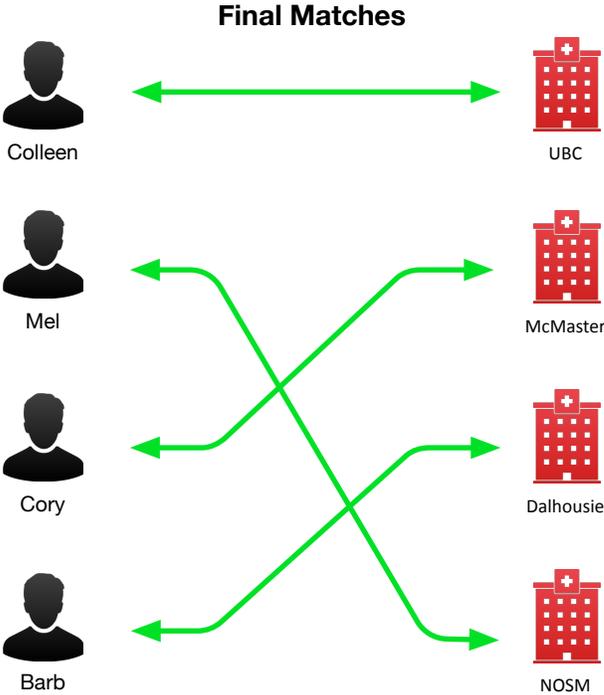
3. Colleen and Cory are both tentatively matched to UBC, but there is only one spot. Therefore, UBC is able to choose a candidate based on their Rank Order List.



4. Cory now makes his second choice based on his Rank Order List.



5. There are no more conflicts, and therefore a final match is made!



**Colleen** is a strong candidate and is confident about her applications and interviews. She chooses to rank UBC Peds first as this is her preferred program but she also ranks the others, which she also finds acceptable. The program director at UBC Peds told her that she would be ranked highly. Candidates should be cautious of these statements and they should not be considered commitments. **Colleen has chosen a wise strategy. Applicants should consider ranking all programs they would consider to maximize their chances of matching.**

**Mel** also prefers UBC Peds but thinks she has a low chance of getting in so she ranks it last. She leaves Dalhousie Family Medicine off her list because she thinks her interview went terribly, even though she would like this program. **These are both poor strategies. Applicants should rank programs in order of preference, and they should rank all programs to which they would consider matching.** Ranking should not be influenced by speculations of programs' rankings, as these may be inaccurate.

**Cory** decides after his interviews that he no longer wants to pursue a residency in Dalhousie Family Medicine or NOSM Internal Medicine so he leaves them off his list. **This is a wise strategy. You should only rank programs that you would consider.**

**Barb** really wants to go to NOSM Internal Medicine but does not think her application is competitive enough. She ranks it first anyway because this is her preferred program and the other programs will never know she ranked them lower. **This is a wise strategy. During the match, an applicant is placed into the most preferred program that ranks the applicant. Always put your most preferred program as your first choice.**

## Second Iteration

If a candidate, like Mel, goes unmatched after the first iteration, they can participate in the second iteration of the R-1 match in CaRMS Online. They are not automatically enrolled in the second iteration. The second iteration is approximately five weeks in duration.

CaRMS will post a list of unfilled positions available in the second iteration. During this time, candidates can supplement any other documentation they require to apply for additional programs. Documentation that was previously uploaded will still be on file. Applications continue to be sent to programs through CaRMS Online.

Your faculty advisor may assist you during this stage of the process. Note that requirements vary from program to program and are subject to change during the second iteration. The most up-to-date requirements will be posted on [carms.ca](http://carms.ca). Most notable is the short time frame within which the application must be submitted.

**As in the first iteration, candidates are legally bound to their matched residency program.**  
**Options for the Unmatched Candidate**

### **Tips for creating your ROL**

- The sequence of your rank order list should reflect your true personal preferences.
- Rank all the programs that are acceptable to you and do not rank any programs which you find unacceptable. Remember, a match result is BINDING and you are not able to decline a match result.
- Postgraduate programs are not permitted to ask you questions about your rank intentions and you are able to decline answering such questions.

**If I do not match in the first iteration, do I have to apply for the second iteration?**

No. An unmatched student from the first iteration has the choice to opt out of the second iteration and thereby delay entry into postgraduate training for one year. They can then enter the match again in the first iteration of the following year.

**What if I go unmatched following the second iteration of the Match?**

Should a candidate remain unmatched following the second iteration, he or she can choose to take part in what is referred to by medical students as the “Scramble,” or more formally, “post-match process”. During this time, students apply to participating programs through CaRMS Online. These positions are publicly available on CaRMS’ webpage.

Any candidate who goes unmatched should consult their undergraduate office to determine their options. This may involve discussing their career planning with a faculty advisor. Individual faculties may have a point-person who can help unmatched students strengthen their application for the following year. Options for the interim year can include an additional year of undergraduate medical education or a research fellowship before enrolling in the match the following year.

If the student chooses to apply to a program following the second iteration, students may need to contact individual schools to identify any available programs and apply directly through them. CaRMS facilitates document transfer through CaRMS Online for participating programs in the post-match process and posts a list of participating programs on their website, [carms.ca](http://carms.ca).

## **The Couples’ Match**

### **Overview**

CaRMS’ ranking tools allow two applicants to prepare and submit their ROLs as a couple. Using this option, each program desired by one partner can be paired with a program desired by the other partner, and a single ROL composed of these pairings will be used. To have a successful

match, both programs on the top pairing must match with both applicants. If not, the algorithm moves down to the next preferred pairing, until both partners match.

*Note:* By pairing their choices, couples may be limiting their individual chances of a successful match because each partner depends on the other for the match results.

Let's work through another example<sup>2</sup>...

Imagine a couple, Colleen Esterase and Cory Za, who decide to try matching as a couple.

**Step 1: Each partner should prepare their own individual list of preferred programs on a separate sheet of paper.**

- | Colleen Esterase   | Cory Za   |
|--|---|
| <ol style="list-style-type: none"> <li>1) McMaster Peds</li> <li>2) UBC Peds</li> <li>3) MUN Peds</li> <li>4) Dalhousie Peds</li> <li>5) Western Peds</li> </ol> | <ol style="list-style-type: none"> <li>1) McMaster Ortho</li> <li>2) UBC Ortho</li> <li>3) Western Ortho</li> <li>4) MUN Ortho</li> <li>5) Dalhousie Ortho</li> </ol> |

**Step 2: Both partners must decide together what PAIRS of programs they are prepared to rank.**

Couples may consider all the possible pairings where the programs are in the same general location or they may also wish to form some pairs where the programs are not in the same location. One rank in a pair may be designated as "No match" to indicate that one partner is willing to go unmatched if the other can match to their preferred program.

<u>Colleen Esterase</u>	<u>Cory Za</u>
1. McMaster Peds	McMaster Ortho
2. McMaster Peds	Western Ortho
3. Western Peds	McMaster Ortho
4. Western Peds	Western Ortho
5. UBC Peds	UBC Ortho
6. MUN Peds	MUN Ortho
7. MUN Peds	Dalhousie Ortho
8. Dalhousie Peds	MUN Ortho
9. Dalhousie Peds	Dalhousie Ortho
10. McMaster Peds	<b>No match</b>
11. <b>No match</b>	McMaster Ortho
12. UBC Peds	<b>No match</b>

*Note:* A couple may choose to rank only some or all possible combinations of their programs. Ranking more pairings will reduce the chance that partners go unmatched. However, unacceptable pairings should be omitted from the list.

<sup>2</sup> <http://www.carms.ca/wp-content/uploads/2014/10/couples-ranking-example.pdf>

**Step 3: Next, both partners must decide together the order in which these pairs are preferred. Each partner must then enter their side of the list independently into the online system.**

The couple might have a final list of paired programs like the one below.

<b>Colleen Esterase</b>	<b>Cory Za</b>
1. McMaster Peds	1. McMaster Ortho
2. UBC Peds	2. UBC Ortho
3. McMaster Peds	3. Western Ortho
4. MUN Peds	4. MUN Ortho
5. Dalhousie Peds	5. Dalhousie Ortho
6. Western Peds	6. Western Ortho
7. MUN Peds	7. Dalhousie Ortho
8. Dalhousie Peds	8. MUN Ortho
9. Western Peds	9. McMaster Ortho
10. McMaster Peds	10. Dalhousie Ortho
11. McMaster Peds	11. UBC Ortho
12. McMaster Peds	12. MUN Ortho
14. UBC Peds	14. McMaster Ortho
15. UBC Peds	15. Western Ortho
16. UBC Peds	16. MUN Ortho
17. UBC Peds	17. Dalhousie Ortho
19. MUN Peds	19. McMaster Ortho
20. MUN Peds	20. UBC Ortho
21. MUN Peds	21. Western Ortho
23. Dalhousie Peds	23. McMaster Ortho
24. Dalhousie Peds	24. UBC Ortho
25. Dalhousie Peds	25. Western Ortho
27. Western Peds	27. UBC Ortho
28. Western Peds	28. MUN Ortho
29. Western Peds	29. Dalhousie Ortho
13. McMaster Peds	<b>13. No match</b>
18. UBC Peds	<b>18. No match</b>
22. MUN Peds	<b>22. No match</b>
26. Dalhousie Peds	<b>26. No match</b>
30. Western Peds	<b>30. No match</b>
31. <b>No match</b>	31. McMaster Ortho
32. <b>No match</b>	32. UBC Ortho
33. <b>No match</b>	33. Western Ortho
34. <b>No match</b>	34. MUN Ortho

Once you have listed all your couples rank options, each individual can choose to continue ranking programs to maximize individual match opportunities.

A rank of 'No match' should only be used if the couple agrees that one partner matching is a more acceptable result than neither partner matching. For example, using the pattern below, both individuals from the pair are given the same opportunity for their best-case match result as an applicant who submits an individual rank order list.

For example, if Colleen's best match opportunity was Western Peds (her fifth choice) and Cory's best match opportunity was McMaster Ortho (his first choice), they would match at rank 9. However, if Colleen was not ranked by any programs or ranked behind other candidates and all positions were filled, and Cory's best match opportunity was McMaster Ortho (his first choice), they would match at rank 31, giving both partners the match result they would have received if they had submitted individual rank order lists.

## 2. DATES AND MILESTONES

Disclaimer: The information below was taken from the CaRMS website and is subject to change without notice. For the most updated deadlines, please visit the CaRMS website at <http://www.carms.ca/en/residency/r-1/>

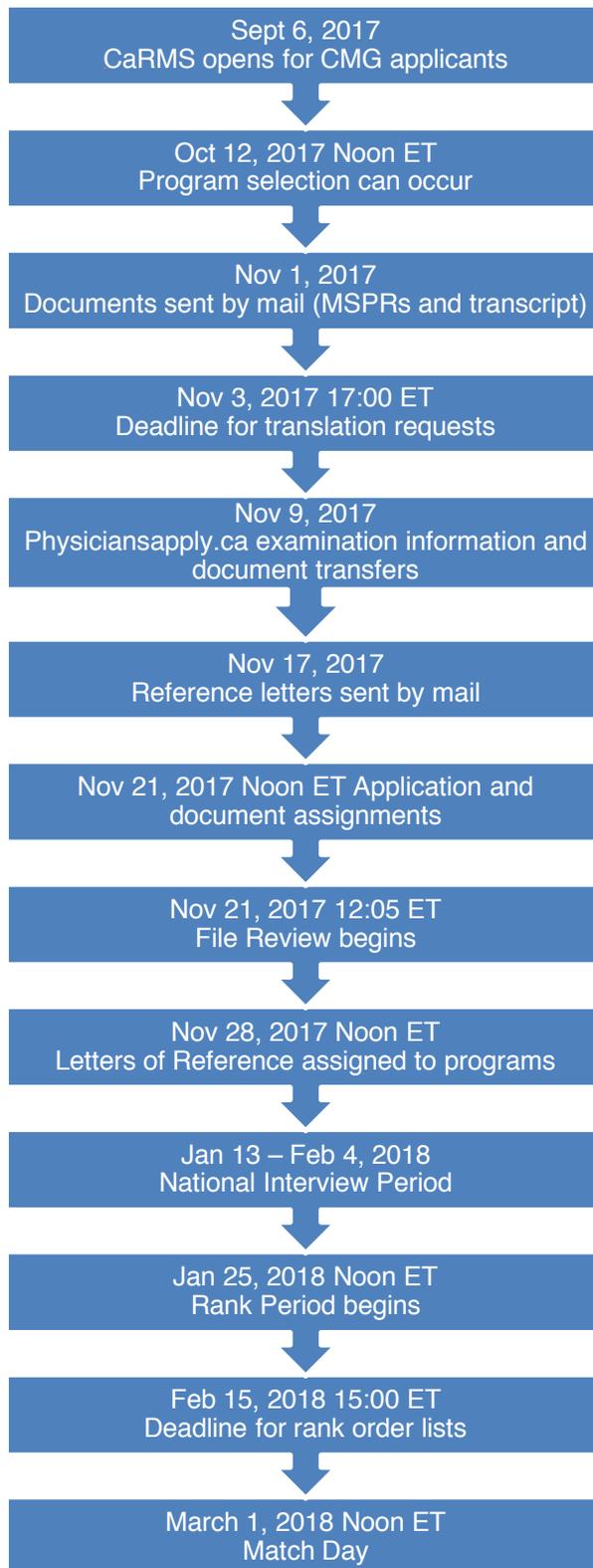
### General Information

All fourth year students applying for entry into postgraduate medical training programs will be going through the R-1 Main Residency Match.

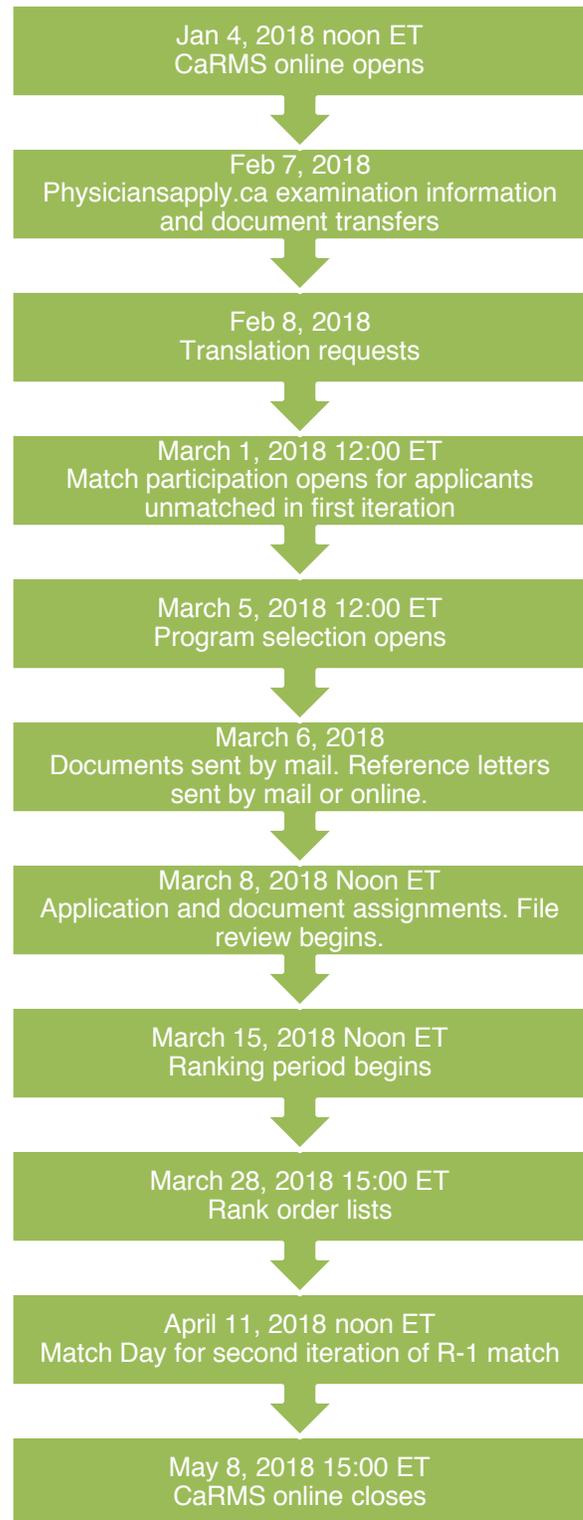
The R-1 Main Residency Match is divided into the first and second iteration. Below is important information pertaining to both, which will be essential for you to consider through the application process.



## First Iteration

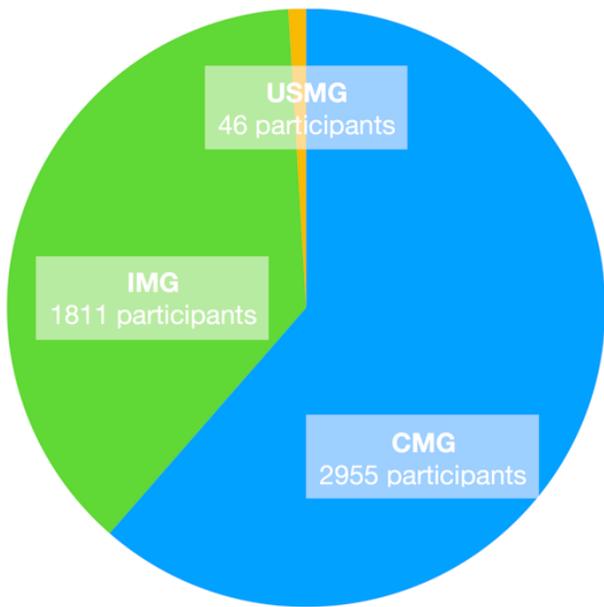


## Second Iteration



## 3. STATISTICS

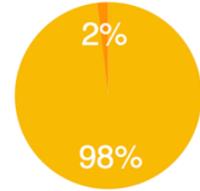
Disclaimer: The information below was taken from the CaRMS website and is subject to change without notice. For the most updated deadlines, please visit the CaRMS website at <http://www.carms.ca/en/residency/r-1/>



In the **2017 CaRMS R-1 Match**, there were 2955 Canadian Medical Graduates (CMGs), with an **overall CMG match rate of 95%**.

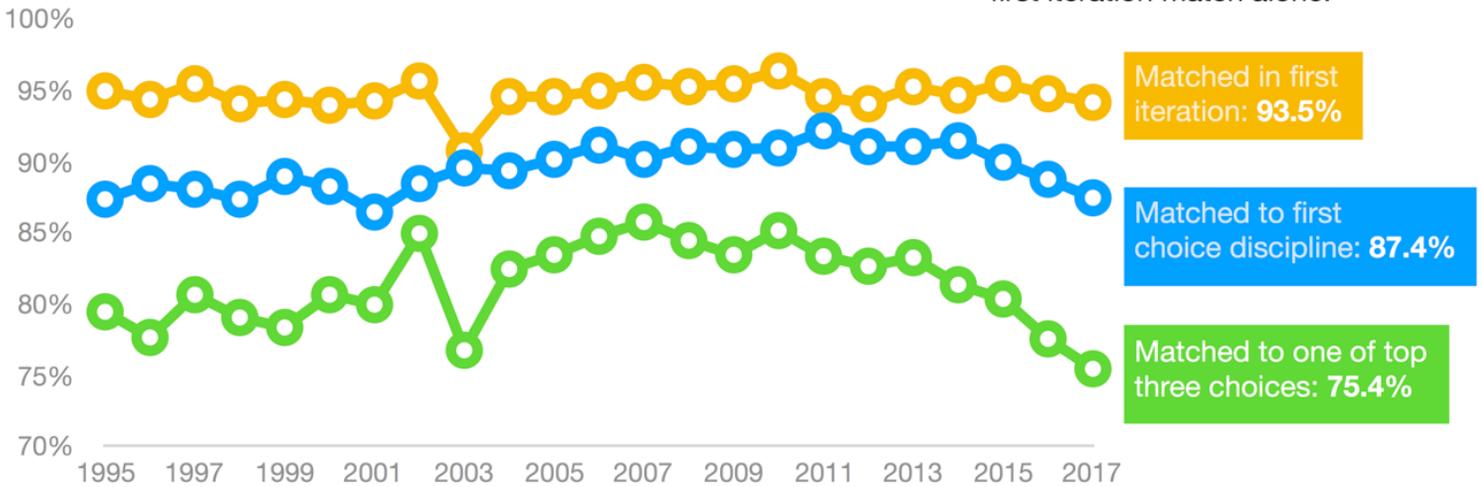
IMGs' match rate was 23%, and USMGs' match rate was 52%.

Out of 3304 total residency positions, **3241 were filled** and 63 remain unfilled.



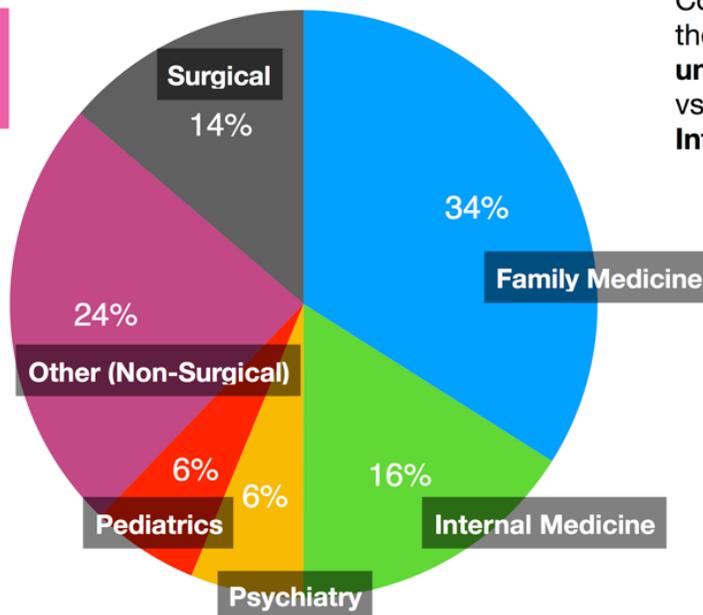
The **R-1 match has, overall, become increasingly competitive** in recent years, especially when we look at the first iteration match alone.

### R-1 First Iteration



### First Choice Disciplines

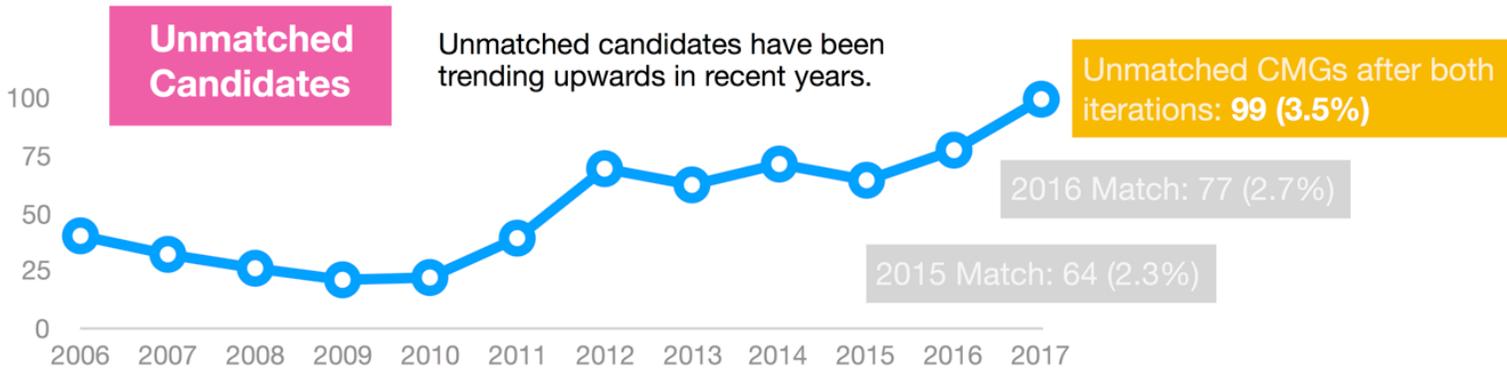
Compared to the 2016 Match, Family Medicine is slightly less popular (36% to 34%) and Internal Medicine is slightly more (15% to 16%) but this overall breakdown has been relatively constant from year to year.



Compared to the previous year, after the first iteration there were **more unfilled Family Medicine spots** (151 vs. 98) and **fewer unfilled Internal Medicine spots** (3 vs 19).

### Quota filled after first iteration (spots and %)

Family Med: 1208 (89%)  
 Internal Med: 448 (99%)  
 Psychiatry: 173 (96%)  
 Pediatrics: 131 (99%)  
 Anes: 100 (100%)  
 Gen sx: 84 (100%)  
 Radiology: 75 (96%)  
 OB/Gyn: 77 (100%)

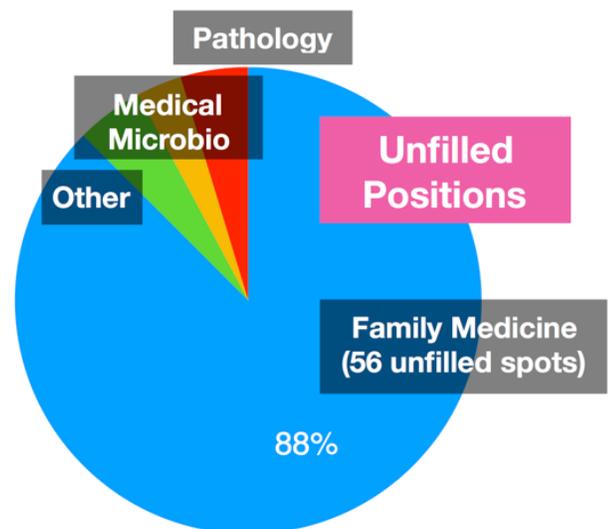


	First choice 2017	First choice 2016	First choice 2015
Anatomical Pathology	91% (30/33)	100%	92%
Anaesthesia	70% (97/138)	73%	71%
Cardiac Surgery*	70% (7/10)	75%	89%
Dermatology	49% (30/61)	44%	51%
Diagnostic Radiology	79% (70/89)	88%	74%
Emergency Medicine	53% (63/118)	50%	56%
Family Medicine	97% (950/983)	96%	96%
General Pathology*	100% (3/3)	75%	100%
General Surgery	72% (78/108)	79%	85%
Heme Pathology*	100% (1/1)	100%	-
Internal Medicine	84% (390/464)	88%	95%
Laboratory Medicine	92% (34/37)	100%	33%
Medical Genetics*	100% (3/3)	100%	100%
Medical Microbiology*	100% (2/2)	64%	100%
Neurology	67% (41/61)	90%	79%
Neurology – Pediatric*	67% (6/9)	75%	83%
Neuropathology*	100% (2/2)	-	100%
Neurosurgery	58% (15/26)	67%	88%
Nuclear Medicine*	100% (5/5)	67%	50%
Obstetrics/Gynecology	63% (71/113)	70%	73%
Ophthalmology	69% (34/49)	69%	74%
Orthopedic Surgery	82% (47/57)	87%	76%
Otolaryngology	69% (27/39)	69%	62%
Pediatrics	71% (121/171)	75%	80%
Physical Med & Rehab	81% (25/31)	60%	76%
Plastic Surgery	49% (24/49)	46%	53%
Psychiatry	88% (159/180)	88%	88%
Public Health*	84% (16/19)	78%	57%
Radiation Oncology*	100% (9/9)	100%	94%
Urology	60% (31/52)	64%	81%
Vascular Surgery*	88% (7/8)	75%	62%

### Matches in First Iteration by Discipline

For each individual program, please refer to the table on the left, which shows the percentage of CMGs which matched in the first iteration when they ranked the specific discipline as their first choice.

\*: Fewer than 20 applicants indicated this specialty as their first choice discipline this year. Match percentages may vary greatly from year to year due to the small number of applications.



Out of **63 unfilled positions** after the R-1 Match, **56 were in Family Medicine (all of which were in Quebec)**. The rest were split between Anatomical Pathology (3), Medical Microbiology (2), Hematological Pathology (1), Neuropathology (1), and Psychiatry (1).



## 4. TIPS FROM RESIDENTS

The 'CFMS Match Book Student Advice Survey' was sent via the CFMS VP Communications to the various schools in Canada for distribution to the most recent graduating class. These students went through the 2016-2017 CaRMS match process. The tips that they have provided are related to the preclerkship and clerkship years and the advice below is organized in that way. Some of the quotes have also been contributed from a survey sent out to collect information on electives by the CFMS Education Committee (CFMS Electives Database Questionnaire).

### PRE-CLERKSHIP

#### Building Your Dossier

"Pre-clerkship? Do more research if you think it will help your application (you will never have more time than now to do it)."

Diagnostic Imaging PGY1

"Carms is just as much about how you relate to people during interviews and elective as it is about your research and leadership. "

-Hematopathology, PGY1

"If something competitive might be interesting to you but you aren't sure, it's safer to do some extra work or research in that area and then not apply than to not have those things on your CV."

- Family Medicine PGY1

"If I had a chance to go back to my pre-clerkship studies, I would have been more involved in extracurricular activities."

- Radiation Oncology PGY1

"Do extracurriculars/research that you enjoy, even if they're not obviously relevant to your chosen specialty. Almost anything can be spun in an interview to be relevant. Try to have a balance of fun extracurriculars, volunteer work, leadership work, and research on your CV."

- OBGYN PGY1

## CLERKSHIP

### Research

“Its ok to get some research experience during clerkship, and it doesn't have to be anything big.”

- OBGYN PGY1

“If you don't have research in your chosen field, don't worry. Research experience of any kind is valuable. That being said, if you have the opportunity to get involved in research in your speciality I would encourage you to take it.”

- OBGYN PGY1

“Make sure you do research and try to publish in the area you are pursuing. Ask residents a lot of questions re application process, tips, reference letters etc Seek out mentors to provide you with guidance.”

- Urology PGY1

“Try to do a research project in the field you want to apply as soon as possible and work hard in all your rotations not only the one you want to apply.”

- General Surgery PGY1

### Choosing Your Discipline

"Applying to multiple specialties is tough and it helps to have a coherent story, for example a research interest that unites all three disciplines. "

- Psychiatry, PGY1

"I think applying to multiple specialties should be avoided. try to decide earlier. "

- Family Medicine, PGY1

“Program directors notice positive attitude and the ability to work together well, despite being in competition.”

- Urology PGY1

“Take some time to think about the career/life you want to be living in 10-20 years time (What, where, hours, flexibility, research, teaching, etc.). How many specialties meet these goals (likely multiple ones)? Are there multiple areas that you could craft a meaningful and enjoyable career path? Apply and interview broadly. “

- ER PGY1

“Keep in touch with mentors with whom you've had good experiences in the past. Especially if they are in a related field of interest, try and touch base with them/spend an afternoon with them here and there so they can better get to know you, and track your progress. If all goes well you will have a more meaningful reference letter from this person. “

- Anesthesiology PGY1

“Think early about specialties you might be interested, and ask people in them if they are happy - sometimes the brief glimpse of something you see as a student isn't representative of what the job will be like as a resident or staff. “

- Family Medicine pGY1

"Don't be afraid to switch specialty choices, as long as you're not switching Fall prior to CaRMS match. Don't be afraid to not back up either, but also don't be fooled into thinking programs will look more favourably on you just because you've only done electives in their specialty. Show an interest in that area, and if you choose an elective in a wildly different specialty, just be prepared to explain it. Programs understand it's hard to make up your mind, and it's never a bad thing to show you have more than one interest."

- Urology, PGY1

"If you get a strong feeling for or against a specialty during your fourth year, listen to it!!! You are NEVER (and I mean never) locked in forever, but the earlier you listen to your gut the easier it is to move around."

- Internal Medicine, PGY1

“Select a discipline that matches your existing life goals rather than trying to match your life to a discipline. Basically, It's about asking yourself ‘based on my values/what's made me happy with a work environment previously/etc, this is where I want to be in \_\_\_ years. Is this discipline and this program going to help get me there?’ It's easy to get caught up selling yourself to programs - make sure that the program matches your needs first. “

- Family Medicine, PGY1

“Having mentors was an important part of my decision to pursue my specialty...Knowing about the lives of physicians and residents will and should have a large impact on your career choice.”

- Radiation Oncology, PGY1

“I would probably pick a specialty and commit to it unless I was extremely undecided as in my experience splitting 50/50 will possibly reduce the number of good reference letters per discipline and lead to potentially having less interviews. I would also look at the required reference letters in my discipline of interest early so I can apply to more programs (some have specific letters requested or a larger number than anticipated).”

- Pediatrics PGY1

“ If you do not know what you really want to do long term, do not panic. There truly is something for everyone. It is not unusual to REALLY know what you want to do until you finish 3rd year/start 4th (some even later). You will definitely know when you have stumbled upon the specialty that is right for you. “

- Diagnostic Imaging PGY1

“When choosing a discipline, don't just look at your rolemodels' work lives. Try to get an idea of the lifestyle outside of work hours as well. If you think spending time with your family is important but everyone in your chosen discipline seems to have little time for their family, then that's extremely important.”

- Family Medicine PGY1

“Make sure you back up.”

- Psychiatry PGY1

“Keep your mind open during your core clerkship rotations and make sure to enjoy them all. “

- Orthopedic Surgery PGY1

“Narrow my preferred specialty down to 2 options before the start of 4th year. Don't sweat the small stuff so much. “

- Emergency Medicine PGY1

## Electives

“Try to arrange electives at schools you are interested in actually matching to (seems self explanatory, but it helps you prioritize your elective applications)”

- OBGYN PGY1

"Do electives at and get LOR from the specific schools you're most interested in going to. Helps significantly with getting an interview there."

- ER, PGY1

“I wish I had known early in third year how important it is to do away electives at the schools you are interested in, not just where is convenient or easy to travel to. It would have been helpful to meet the programs I would later apply to.”

- ER, PGY1

“If you are sure about what you want do electives broadly (at least one out west, one out east). Pick a light elective over the CaRMs submission period (usually block 6). Pick a light elective for the last block.”

- OBGYN PGY1

“If applying across the country, do electives across the country, shows that you are willing to move for training.”

- Radiology PGY1

“Take more varied electives, but still enough to show definite interest in a certain specialty.”

- Diagnostic Imaging PGY1

“Do electives in your first choice ...this means also having an elective in your second choice specialty to make sure you don't like it more than your first... the next consideration should be investigating residency sites for your chosen specialty, you want to make sure that you're in a good place for your residency training.”

- Anonymous

“For electives make as much effort as possible to seek out good preceptors. This can be tricky but reach out to other past and present students and any other contacts to get the best preceptors you can.”

-Family Medicine PGY1

“Choose electives broadly, in number and location, for your desired discipline, but also prepare for a back up discipline to increase your chance of matching.”

- Internal Medicine PGY1

“If you are applying to a competitive speciality and are willing to move anywhere to do that speciality, it is often important to show that you are willing to move outside of Ontario by completing electives on either or both coasts.”

- OBGYN PGY1

“I applied to three specialties (family, pediatrics, and psychiatry), and I am glad I did. The application and interview process helped solidify my choice and gave me a lot of confidence that I was making the right choice in specialty. :)”

- Psychiatry PGY1

## **Duration of Electives**

“My 3 week electives were by far better than 2 weeks. If you can squeeze in 3 weeks, do it. I learned so much more that 3rd week because I knew the ropes and by then, the staff and residents knew me better. “

- PMR PGY1

“It is better to do shorter electives than longer ones (IE 1x2weeks and 1x1week rather than 1x3weeks) because on CaRMS your electives show up as a list and the dates are in small writing so more shorter electives actually look like more. That being said, I'm sure some

programs actually calculate how many weeks you do in their specialty and longer (2 week) electives might lead to a better letter, so it's a balance.”

- OBGYN PGY1

## Other Electives Advice

“On electives at some schools it's a "do" and others a "don't" to try to meet with program directors. See if you can get in touch with a current resident of a program to see what they recommend and if they say program directors like to meet with you, if you're interested in that program, make sure you do it!”

- OBGYN PGY1

“Volunteer to give presentations at rounds during electives; it's a simple and effective way to increase your exposure to stakeholders and to look good doing so. “

- General Surg PGY1

“If you're interested in internal medicine, focus on doing CTU electives. “

- Internal Medicine PGY1

“Try not to request electives at two schools that you're very interested in at the same time - i.e. don't use schools that are really high on your list as back-ups because that can lead to you cancelling an elective at one of your preferred schools which doesn't help your application.”

- OBGYN PGY1

## Post-CaRMS Electives

“Post-CaRMS electives are still important. If you haven't completed all...weeks in your chosen speciality, it is still helpful to do post-CaRMS electives in that speciality because the elective can help push them in your favor when they read your application. If you have used all weeks up, try to do something that is related and interesting to you.”

- OBGYN PGY1

“I did a ton of electives in my specialty (PMR) which I think worked out well because it gave me the first-hand experience to see which programs I liked best. However, I felt weak in other areas and tried to do post-CaRMS electives in those weak areas. “

- PMR PGY1

“Post CaRMS electives are underrated - even though you can't get a reference letter you can still meet with the program director (while they are deciding about interviews!) and show interest in their program.”

- General Surgery PGY1

"Post CaRMS electives are traditionally thought of as 'useless'. In my case, I was able to make a good impression that lasted until interviews. I then met people I had just recently worked with, which was an added bonus because they remembered me well and we could discuss very recent patient/team interactions. I think we should 'brand' post CaRMS electives as 'you can't get a letter, but you can make a great impression right before/during the interview selection process.'"

- OBGYN, PGY1

## CaRMS Application

"Start your application letters early and keep your CV up to date."

- Pediatrics PGY1

"For your CaRMS applications, only apply to ONE site per school (or ONLY the sites that you are 100% sure of). Every school will give you a few days after your interview to add on more sites to your application, if you want to. This will save you hundreds of dollars because you will realize that you are not interested in every site for each program."

- Family Medicine PGY1

"When you are writing your CaRMS application make sure everything is consistent with the 'story' you are trying to tell/sell. Write up your CV/personal letter/CaRMS file emphasizing the same things. And make sure you pick real hobbies because you will be asked about these. "

- OBGYN PGY1

"Keep resume up to date and do that early as opposed to scrambling last minute"

- Family Medicine PGY1

"Apply broadly to all the programs in that specialty, even if you don't plan on going to a certain school. You need to apply broadly to get lots of interviews to have options when you make your rank list."

- Paediatrics PGY1

## Letters of Recommendation

"Ask for a reference letter at every relevant elective, and consider asking during clerkship if you've felt like you've had a good rotation. To ask, use some variation of "Would you be able to write me a strong reference letter?" Make sure your preceptor and the rest of the team knows how much you enjoyed you elective/ are excited about the program."

- OBGYN PGY1

"If you can try to get a letter from each elective you do to use for your application for that specific school. (Tip: you can use different letters for different schools). If you are not assigned

to a specific doctor but a team of residents ask them early on to put you in the clinic/OR with the same doctor a few days on your elective to give you a better chance to get a letter.”

- OBGYN PGY1

“Always have a strong letter from your home school. This is especially important for those who aren't sure what you're going to be applying for. ie - if something you may be interested in is in the first half of 3rd year when you're not even thinking about CaRMS, still consider trying to get letters from staff no matter what! It's never too early to work for, and ask for a letter.”

- Internal Medicine PGY1

“And when on electives and in clerkship try to do observed patient encounters with your preceptors - I know it feels awkward but soon they will be able to see how you get along with your patients and seeing it first hand will help them write an excellent reference letter which really represents you.”

- Pediatric Neurology, PGY1

“I would recommend asking for reference letters from everyone, starting early on in clerkship, even if you don't think you want that specialty or you didn't feel like it was your strongest rotation. “

- Internal medicine PGY1

“If you're doing an elective in an academic center, they know you need letters for your application. They expect to be asked (if the elective is going well) so try not to be nervous about asking. Its helpful to set aside time at the end of your elective to meet with your assigned supervisor and debrief on how the elective went (this gives you an opportunity to broach the subject of a letter in a less awkward way).”

- OBGYN PGY1

“Always ask for a reference letter if you think you had a good rotation! I did this throughout 3rd and 4th year and ended up with about a dozen reference letters. This means I could really tailor which ones I used for which applications, and I wasn't stressed at the last minute if somebody hadn't submitted theirs yet. “

- Physical Medicine and Rehabilitation, PGY1

“Ref letters do not all have to be from your specialty of interest. Better for people who know you very well.” - Radiology PGY1

“Choose your reference letter requests wisely! 1) Know how many you need and what program(s) they need to be from for each CaRMS application. Know this BEFORE you start asking for letters 2) Ensure you ask someone, "Can you provide me a POSITIVE reference letter?" 3) Ask only as many people as you need, or maybe one spare.”

- PHPM PGY1

## Personal Statements

“I wrote a base letter for my top choice school first. Then I edited this letter to fit the criteria for each school. Get someone to read your letters over, I'm a pretty terrible writer so it was embarrassing having people read them, but it helps to have the advice. “

- OBGYN PGY1

“Start working on your personal letters in September. There is lots going on during electives and they can get left until the last minute and then get rushed through. Work on them gradually because they will take up the majority of your application prep time.”

- OBGYN PGY1

“I had feedback at interviews that my letter really affected them, and at the program that knew me well they commented that it was reflective of who I am.”

- PMR PGY1

## Interview Logistics

“Don't overdo it. If you are applying to multiple disciplines, or if you get a decent number of interviews, research the programs beforehand (by doing electives there, talking with residents, reading about their programs online) and pair down a list of your desired residency programs well in advance. Be okay with declining interviews if you are in a position to do so. I'd cap the number of interviews at ~10 if I were to do it over again.”

- Family Medicine, PGY1

“Be authentic/yourself...you're dealing with real people and they want to get the sense that you're a real person with a real personality..it can be helpful to try to schedule an interview at a site that you're not considering seriously as your first so that you gain some practice before the sites that really matter to you.”

- Family Medicine PGY1

“I always tried to book my flights for the day before, and do the social the night before the interview. For Ob/Gyn there were a lot of residents that's attended, it's a good way to ask informal questions ahead of your interview and so you know a bit more about the program before your interview.”

- OBGYN PGY1

“For trying to keep costs down during the CaRMS interview period, AirBnB was a great resource for accommodations. You can also try to be proactive about scheduling your interviews in a way that minimizes flights. Many programs list their anticipated interview date in their program description on the CaRMS site. Before interview offers come out you can make a

calendar of which date you ideally want to interview at which school. This is helpful to have done before offers come out because scheduling is on a first come first serve basis. The more disciplines you apply to the more difficult it is to coordinate interviews by location but making the calendar might still be a useful exercise for interview planning. “

- Family Medicine PGY1

“Travel - coordinate with class for sharing airBnB, travel. For interviews, everyone is different, but doing hotels near the hospital takes a lot of stress out of the process”

- Radiology PGY1

## Interview Preparation

“Write down significant experiences as you go through clerkship and electives, including what you learned from them. When it comes time to prepare for interviews, choose 10 stories (7-9 clinical, 1-3 nonclinical) and write out the brief details of each. Make sure you know these stories going into interviews, and practice applying them to answer different questions. This will help you pull up examples quickly when needed. “

- OBGYN PGY1

“PRACTICE! There are resources for likely questions, and focus on the important ones and think up rough ideas of how to answer them. Then actually sit in a room with a friend and have them interview you. But don't just get them to read pre-prepared questions, get them to followup or ask improvised questions or ask your prepared questions in novel ways so that you get used to the spontaneity of a real interview.”

- Family Medicine PGY1

“Look up interview questions for your specialty and come up with some answers and examples (in your head, with someone close to you, whatever format you like but just give it some fore thought). Your first interview or two probably won't be awesome but they get much easier after that; schedule them accordingly.”

- Family Medicine PGY1

“I would take everyone's advice and actually keep a "canmeds" journal of stories - stories about times I was great, times I made mistakes, and what I did about them are pure gold for personal statements, interviews and honestly deciding which program is a good fit.”

- Internal Medicine PGY1

“If your school offers practice interviews - try one. It's helpful to get feedback from someone who has seen many people prepping for the same type of interview. If the provincial medical association in your province offers practice interviews - go to it. I found the one through the OMA very helpful.”

- OBGYN PGY1

## During the Interview

“What's the biggest weakness of your program?” or something along those lines. If they're not able to name one it's often (but not always) a bad sign as they're likely not being honest.”

- Family Medicine PGY1

“Have some questions prepared that demonstrate your interest in the program, and also knowledge of it's strengths and areas of growth. The questions can also highlight your unique interests and strengths.”

- Psychiatry PGY1

## Rank Order List

“When you make your rank list, think hard about what you want from a program, from a location, and from a lifestyle because all three things matter a lot.”

- Family Medicine PGY1

“There is NO reason not to rank schools in your actual preference order. It does not help you to think about what you think your likelihood of matching to a school is and taking that into consideration when you make your rank list. Rank what YOU want. The algorithm favours the applicant over the program so there is no reason to alter your rank list from your actual preferred order of schools and programs.”

- OBGYN PGY1

“I applied to one school only and found myself regretting this decision.”

- Family Medicine PGY1

“When it comes to ranking, be honest with yourself and decide if you are truly willing to train at that program - it's okay to not rank a program you are unwilling to train at if you decide you would rather not match than be stuck in a program you hate.”

General Surgery, PGY1

“It's also very reasonable to end up with a rank order list containing more than one specialty, ordered by how you liked the specific locations of each program and not just based on specialty!”

- Anonymous

## Challenges with CaRMS

“Please apply across the country, including rural areas, for both your primary and your backup. I went unmatched first round because I did neither (IM Ontario only and only 3 very popular schools for backup FM). Whatever the trouble of the extra paperwork in the first round, it is WAY less than the second round. Only half of my classmates in the second round ended up matching in the second round.”

- Family Medicine PGY1

"I did not match. My fatal flaw was not doing electives in a variety of locations, as well as not applying widely enough (i.e. across the country) in both my specialty of choice and also my backup specialty. Cannot stress this enough - some places you may not want to train in, but as long as you would prefer that to being unmatched, you should apply! You can also rank them lower and now is really not the time to save on money"

- Anonymous

“On staying excited about medicine: take the premed time machine. If you told me 5 years ago in the midst of my pre-med toiling that I could graduate medical school come 2018 but that I would have to take a year off after going unmatched ... but that I guaranteed would be a physician ... I would GLADLY have taken the offer. This isn't to diminish how gut-wrenching going unmatched can be, but instead to emphasize that, in the grand scheme of career options, there's a lot to be grateful for. Just my two cents.”

- Family Medicine, PGY1

## 5. ADDITIONAL CONTENT

### Hidden Costs of Fourth-Year Medical School—and How to Manage Them

By Daniel Peretz, with consultation from recent graduate Dr. Han Yan

Getting into medical school was our first challenge—paying for it is another. There’s no doubt that medical school is expensive! It’s not just the cost of tuition and books: as we head into our fourth year of med school, we’ll need to be prepared for the additional, variable expenses associated with rotations, away electives and Canadian Resident Matching Service (CaRMS) interviews.

Costs related to electives and CaRMS will vary, depending on how many away electives you select and the number of programs you apply to. The number that medical students apply to keeps rising every year. In 2016, the average number of programs per applicant was 17.7, up from 12.1 just five years ago.<sup>3</sup>

Here are some of the more significant additional costs you can expect in fourth year.

CaRMS Costs	Other Costs
<ul style="list-style-type: none"><li>· R1 Match participation fee: \$328 (includes application to four programs). Each additional program fee is \$30.50 plus applicable taxes.<sup>4</sup></li><li>· Total CaRMS costs (including travel): Generally between \$3,000 and \$5,000, depending on how many applications you submit and where the matches are located.</li></ul>	<ul style="list-style-type: none"><li>· Medical Council of Canada Qualifying Examination (MCCQE) Part I application fee: \$1,030<sup>5</sup></li><li>· Association of Faculties of Medicine of Canada (AFMC) online portal registration: \$150<sup>6</sup></li><li>· Administrative fee for elective application (cost varies depending on school): \$100 to \$400</li><li>· Elective experience (travel estimate): \$2,000</li></ul>

Note: All figures are for 2016–2017, and should be re-evaluated for subsequent years.

### Tips for Reducing Costs

I wanted to learn how students can best plan for fourth-year expenses from a financial perspective, so I checked in with MD Financial Management, which is owned by the Canadian Medical Association (CMA) and is the exclusive financial services partner of

<sup>3</sup> Canadian Resident Matching Service, 2016.

<sup>4</sup> Canadian Resident Matching Service, 2016. <http://www.carms.ca/en/match-process/your-application/fees/>

<sup>5</sup> Medical Council of Canada, 2017. <http://mcc.ca/examinations/mccqe-part-i/>

<sup>6</sup> Association of Faculties of Medicine of Canada, <https://www.afmcstudentportal.ca/About>.

the Canadian Federation of Medical Students (CFMS). MD shared a few tips that could help students plan ahead—and save money.

### ✓ **Set Up a Budget**

One of the best things you can do early on in your medical school experience is to meet with a financial advisor. Your CMA membership gives you access to a financial advisor at MD Financial Management, and he or she can provide objective, specialized advice to medical students.

A financial advisor can help to connect you with banking and credit advice, as well as work with you to create a personal budget. Building an annual budget in advance of each year of medical school will help you estimate your costs and potential income—and help you better manage your money. Knowing your fourth-year costs ahead of time will allow you to make changes to your budget so that you're not caught off guard.

### ✓ **Consider a Line of Credit**

Many medical students use a line of credit at some point during their education, and many banks offer lending options specifically for students. Make sure you don't over-borrow. As with any type of debt, effective management is crucial. A heavy debt load or a bad credit record can affect everything from your future job opportunities to your ability to acquire, establish or incorporate a medical practice.

### ✓ **Make Use of Credit Cards**

Many credit card companies offer rewards or cash-back, often free of charge for medical students. Paying for your travel expenses, for example, by credit card has a few advantages: there is always an interest-free grace period between the purchase date and the payment due date, and some cards offer insurance on car rentals and even some types of travel insurance. But credit cards can also come with financial risk, especially if you miss the grace period and end up paying high interest rates. Just be sure to pay down your credit card bills by their due dates; missing payments entirely could have a negative effect on your credit rating.

## **Travel-Related Tips and Tricks**

Here are some other ways you can be more prepared for fourth-year expenses.

### ✓ **Ask a Peer for Advice**

Whether you're travelling for CaRMS or for other purposes, your fellow students can help. They may have tips that will save you time and money—for example, where to stay and where to eat.

### ✓ Look for Travel Deals

Transportation will eat up a large portion of your travel expenses, so don't forget to ask about student rates when you make reservations. CMA members get discounts from Via Rail and Enterprise/National car rentals, and the CFMS also offers a number of travel discounts.

### ✓ Take Advantage of Loyalty Programs

Many companies offer member programs that allow you to accumulate points or privileges on every trip. Ask family members if they would consider donating points for you to use.

### ✓ Consider Accommodation Alternatives and Discounts

For many medical students, electives will take place across the country and costs for flights, accommodation and meals can add up quickly. Some students may have the option to stay with friends or family, while others will have to find hotels, Airbnbs or sublets.

As a CMA member, you can get discounts from several hotel chains, and the CFMS offers discounts for Choice Hotels. You can also try to stay at university residences and apartment complexes to avoid costly hotel bills.

## What to Expect

As the Class of 2018 heads into fourth year, we know there will be unavoidable additional expenses. But we shouldn't base our program decisions on cost. There are ways to plan ahead and mitigate the financial impact—and it all starts with knowing what to expect.

### *About the Authors*

*Daniel Peretz, Vice-President Finance for the CFMS, is a fourth-year medical student at McGill University.*

*Dr. Han Yan, Vice-President Student Affairs for the CFMS, is a recent medical graduate from Western University.*

MD Financial Management provides financial products and services, the MD Family of Funds and investment counselling services through the MD Group of Companies. For a detailed list of these companies, visit [md.cma.ca](http://md.cma.ca).

## **AFMC Elective Portal**

The AFMC Student Portal is the one-stop-shop for Canadian and international students applying for visiting electives at all faculties of medicine across the country.

This application system is designed to streamline the elective placement process, and make life easier for students. It includes a searchable database of all visiting electives offered in Canada, payment processing, and a communication tool to keep students informed about their application status. The portal also reflects the commitment of the faculties of medicine to streamline elective workflows, timelines and policies.

Students are encouraged to use the AFMC Student Portal's Visiting Elective Guide to explore options available across Canada. The Guide is an online central database of visiting elective opportunities and can be searched at any time without having to register or submit an application.

For more information visit: [www.afmcstudentportal.ca](http://www.afmcstudentportal.ca)

NOTE: Please refer to specific school policies on the availability of visiting elective opportunities for Canadian and International medical students.

## **Global Health Cards**

The CFMS Global Health Advocacy Program is proud to launch the Health and Human Rights Pocket Card Series. These cards are intended to serve as a resource for medical students who wish to take on a more holistic approach to the patient encounter. If you are interested in learning more about this initiative, please contact the CFMS National Officer of Human Rights and Peace, Henry Annan, at [norp@cfms.org](mailto:norp@cfms.org). Stay tuned for more cards in the future!

<https://www.cfms.org/what-we-do/global-health/human-rights-peace-pocket-cards.html>



## How we *support* your health care practice

*Clinical Tools  
Professional Education  
Patient Teaching Tools*

**Dr. Mike Harlos**  
MD, CCFP(PC), FCFP  
Clinical Team Leader

[virtualhospice.ca](http://virtualhospice.ca)



## Methadone4Pain.ca

Canadian Virtual Hospice, in collaboration with leading pain management specialists, has created a free online training course for physicians wishing to improve their knowledge in methadone prescribing for pain management in palliative care.

**Accredited by the College of Family Physicians of Canada and the Royal College.**

This course will also be of interest to nurses and pharmacists who wish to improve their knowledge of methadone.





Canadian Society of Internal Medicine  
Société canadienne de médecine interne  
200-421 Gilmour Street, Ottawa, ON K2P 0R5  
Tel.: 613-422-5977 / Fax: 613-249-3326  
Toll free: 1-855-893-CSIM (2746)  
[info@csim.ca](mailto:info@csim.ca) [www.csim.ca](http://www.csim.ca)

**Save the Dates! CSIM Annual Meetings**

**Students, join the CSIM for FREE!**

- Toronto, ON · November 1-4, 2017
- Banff, AB · October 10-13, 2018
- Halifax, NS · October 2-5, 2019

The **Canadian Society of Internal Medicine** (CSIM) is a national medical society of physicians who are specialists in the broad discipline of General Internal Medicine.

**Benefits of joining include:**

- ✓ Reduced registration fees to the [CSIM Annual Meeting](#)
- ✓ Receive the [Canadian Journal of General Internal Medicine](#)
- ✓ Eligibility to submit [abstracts](#):
  - Awards for Postgraduate Research
  - Awards for Postgraduate Quality Improvement
  - Ted Giles Clinical Vignettes Awards

**Learn more and join today!**  
Visit [www.csim.ca](http://www.csim.ca) or contact us at [info@csim.ca](mailto:info@csim.ca)



### HELPING YOU PREPARE FOR THE MATCH

Designed for medical students in Canada, the [AFMC Match Myth-Buster Video Clips](#) aim to demystify preconceived ideas about the residency matching process and guide you during this crucial step of your career. Find them in the e-tools section at [www.AFMC.com](http://www.AFMC.com)



#### Time-saving tips on applying for visiting electives

1. Know the elective requirements at the host school
2. Complete the immunization requirements early
3. Add electives to your wish list and upload documents before starting an application
4. Add your completed and 'scheduled' core rotations
5. Diversify your choice of host schools

### YOUR MATCH: OUR TOP PRIORITY

As co-chair of the **Physician Resource Planning Advisory Committee**, a group supported by the Federal/Provincial/Territorial Committee on Health Workforce, AFMC plays a critical role in ensuring the right mix, distribution and number of physicians to meet societal needs while helping you on your journey to a meaningful clinical or non-clinical career. AFMC has also made reducing the number of unmatched Canadian medical school graduates its top priority. The **AFMC Resident Matching Committee** is currently focused on urgently finding concrete solutions for the upcoming academic year.

### AFMC supports you along your pathway to practice

PRE-ADMISSIONS	DURING YOUR MD	RESIDENCY MATCH	RESIDENCY TRAINING	DURING YOUR PRACTICE
<a href="#">Admission Requirements Report</a> MCAT Fee Assistance Program – coming soon  <a href="#">Future MD Canada</a>	<a href="#">AFMC Student Portal</a> <a href="#">Accreditation of Canadian Medical Schools</a>	<a href="#">Myth buster videos</a> AFMC Resident Matching Committee (ARMC) Physician Resource Planning Advisory Committee	<a href="#">PGME Council</a> Canadian Medical Forum <a href="#">Canadian Post-MD Education Registry</a>	Continuing Professional Development tools <a href="#">Accreditation of Continuing Medical Education</a>
National Committees & Networks in medical education and health research <a href="#">Canadian Conference on Medical Education</a>				

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# Free membership for medical students



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 [@soms\\_cfpc](https://twitter.com/soms_cfpc)

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# DOMESTIC & CHILD ABUSE

## GENERAL PHYSICAL EXAM SCREENING TIPS

For Domestic Violence, the **HITS** (Hurts, Insults, Threatens, Screams) survey was found to be an effective screening tool.<sup>[1]</sup>

- 4 screening questions where patients answer in a 5-point frequency format
- Scores range from 4-20, and a score over 10 is considered to be 'positive'
  - ↳ This identifies that there may be abuse and a safety risk
  - ↳ Indicates a need for intervention from health care team
- HITS survey has been shown to be effective in both females and males

Over the past 12 months, how often did your partner :	Never 1	Rarely 2	Sometimes 3	Fairly Often 4	Frequently 5
Physically HURT you?					
INSULT you or talk down to you					
THREATEN you with physical harm					
SCREAM or curse at you					

## QUESTIONS TO ASK WHEN YOU SUSPECT ABUSE

When domestic violence is suspected, ask direct questions that the patient will be able to respond with a 'yes' or 'no'.<sup>[1]</sup>

SOME DIRECT QUESTIONS CAN BE:

- Are you ever afraid at home?
- Has your partner ever hit you?
- Has your partner ever made threats to kill anyone?
- Are you pregnant?
- Do you feel isolated or alone?
- Do you lack support?
- Have you ever had thoughts to self-harm?
- Do you ever feel that you have to go along with sex to keep the peace, or does your partner refuse to take no for an answer?



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# DOMESTIC & CHILD ABUSE

## WHAT TO DO IF YOU SUSPECT CHILD ABUSE

**The Escape Form** was developed by physicians in the Netherlands. It is a series of 6 questions that the treating physician answers to assess whether or not the child is at risk of child abuse.

### “ESCAPE FORM” Checklist for Potential Child Abuse Used at Emergency Departments<sup>a</sup>

Is the history consistent?	Yes	No <sup>a</sup>
Was there unnecessary delay in seeking medical help?	Yes <sup>a</sup>	No
Does the onset of the injury fit with the developmental level of the child?	Yes/NA	No <sup>a</sup>
Is the behaviour of the child/carers and the interaction appropriate?	Yes	No <sup>a</sup>
Are the findings of the top-to-toe examination in accordance with the history?	Yes	No <sup>a</sup>
Are there any other signals that make you doubt the safety of the child or other family members?	Yes* <sup>a</sup>	No

\* If 'Yes', describe the signals in the box 'Other Comments' below.

NA = Not Applicable

<sup>a</sup>If one of these answers is selected, the risks of child abuse could be increased and action is recommended.

A large cohort study across numerous hospitals in the Netherlands, showed increased screening rates, and increased numbers of child abuse cases being discovered upon implementation of the tool. Cases were identified if they met certain inclusion and exclusion criteria and then screened using this tool. It was determined to be an effective tool for identifying children at high risk of abuse.

<http://www.sciencedirect.com/science/article/pii/S014521341300344X>

### QUESTIONS TO ASK THE CHILD

- To assess neglect, ask child to describe a typical day – what they eat, who makes the food, where they play, who comes to or leaves the house and when, whether they have electricity, etc.
- Does any place on your body hurt?
- What happens when you do something your parents don't like?
- What happens at your house (or daycare) when people get angry?
- Do people ever hit? Who do they hit? What do they hit with? How often does it happen? Is it scary?
- Are you afraid of anyone?
- What happens when you take a bath?
- Where do you sleep? What happens when you go to sleep?
- Has anyone touched you in a way you didn't like?

<http://childabuse.stanford.edu/screening/children.html>

### ASKING THE PARENTS

- Do you feel that your child is safe at school (or at daycare or at the babysitter's)?
- Is your child behaving differently lately in a way that concerns you?
- Have you noticed, or has your child complained about, any new physical symptoms lately?



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# ENVIRONMENTAL HEALTH

**Environmental health encompasses the extrinsic physical, chemical, and biological factors contributing to a person's health.**

## HIGH RISK GROUPS



**RURAL/REMOTE**, including Aboriginal populations - more likely affected by environmental factors, such as air or water pollution and climate change

**CHILDREN** - young children under age 5 are most at risk of illness and death due to environmental hazards (e.g. pneumonia, diarrheal diseases)

**ELDERLY** - older adults aged 50 and up are more likely affected by largely non-communicable diseases due to environmental or occupational exposures (e.g. respiratory illness)

## GENERAL



Is there anything that you are exposed to at home, school or work that reduces your quality of life? (E.g. air or noise pollution; mould; unsafe water; toxic hazards)

Do you ever have trouble breathing outside? What triggers this?

How often and how long are you exposed to the sun? With/without sunscreen?

## HOUSING



*Health risks include respiratory infections (dampness - moulds, bacteria), falls/injuries (esp. for elderly), indoor smoke, disease vectors (insects, rodents), allergens (scents, pets), and toxins (asbestos, lead paint).*

Where do you live, in what type of housing, and in what kind of neighbourhood?

How many people live in your household? Do any of them share medical conditions? (e.g. allergies, asthma, skin problems)

Do you have access to a stable source of heating and electricity?

Do you use an indoor or outdoor stove or fireplace? If so, with what kind of fuel?

Does your home have a carbon monoxide detector?

## EMPLOYMENT



*Health risks include hearing loss, back pain, poisoning, COPD and other respiratory illnesses, and carcinogen exposures. Stress is a significant occupational hazard, so do screen for mental health status.*

What is/was your occupation? Are there any hazards that you are aware of in your current or past workplace? (e.g. dust, chemicals, waste, radiation, loud noise, fumes, heavy lifting, pesticides, asbestos, biological agents, etc.)

Do you feel that your health, including your mental health, is aggravated by your work?

Is personal protective equipment worn at your workplace? If so, how often and what kind?



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# ENVIRONMENTAL HEALTH

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## TRANSPORT



*Health risks include traffic injuries, air pollution (exhaust), and physical activity levels. Note that use of public transit or active transport (walking, cycling) not only improves individual health through activity, but also impacts air quality, the environment and overall population health by reducing emissions, for example.*

How do you typically get around or commute to work/school?

Do you ever have problems getting to work, or encounter hazards which affect your health?

## NUTRITION & WATER



*Health risks include foodborne and waterborne diseases, malnutrition, eating disorders, overweight/obesity and related chronic diseases.*

Where do you normally obtain food and how is it prepared (at home/eating out)?

Do you have access to safe, nutritious food? If not, why not (e.g. cost, availability, quality)? How do you store your food and does it often go bad?

Do you have access to adequate clean water? How do you access water for various uses? E.g. drinking (filtered or boiled?), washing produce, bathing, etc.

## RESOURCES

---

Health Canada - Environmental & Workplace Health  
[hc-sc.gc.ca/ewh-semt/index-eng.php](http://hc-sc.gc.ca/ewh-semt/index-eng.php)

Health Canada - First Nations & Inuit Health - Environmental Health  
[hc-sc.gc.ca/fniah-spnia/promotion/public-publique/home-maison/index-eng.php](http://hc-sc.gc.ca/fniah-spnia/promotion/public-publique/home-maison/index-eng.php)

Healthy Canadians - Health and the Environment  
[healthycanadians.gc.ca/healthy-living-vie-saine/environment-environnement/index-eng.php](http://healthycanadians.gc.ca/healthy-living-vie-saine/environment-environnement/index-eng.php)



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# HUMAN TRAFFICKING

As a health care provider, you are in a unique position to recognize and provide help to victims of human trafficking. The emergency room or clinic may be the only opportunity victims have to get help.

## RED FLAGS

- ACCOMPANIER ANSWERS QUESTIONS FOR PATIENT
- ACCOMPANIER REFUSES TO LEAVE PATIENT
- INCONSISTENT HISTORY
- LACK OF MEDICAL FOLLOW-UP OR DELAY IN SEEKING CARE
- LACK OF PERSONAL IDENTIFICATION DOCUMENTS OR ACCOMPANIER HAS DOCUMENTS
- SIGNS OF ABUSE
- YOUNGER THAN STATED AGE
- CHILD/ADOLESCENT WITH NON-GUARDIAN
- MULTIPLE VISITS TO EMERGENCY ROOM
- ACCOMPANIER IS IN A HURRY
- INAPPROPRIATE DRESS FOR WORK/WEATHER
- AGE INAPPROPRIATE FAMILIARITY WITH SEXUAL TERM
- INABILITY TO LEAVE JOB
- FEAR OF DEPORTATION
- NON-ENGLISH SPEAKING DESPITE BEING IN CANADA FOR EXTENDED PERIOD OF TIME
- AFRAID/SUBMISSIVE
- BEING CONTROLLED BY ACCOMPANIER
- TATTOO MARKING OWNERSHIP BY TRAFFICKER
- DOES NOT KNOW ADDRESS/UNFAMILIAR WITH LOCAL SURROUNDINGS

## PATIENT IS UNLIKELY TO IDENTIFY HIMSELF/HERSELF AS A VICTIM

*According to the United Nations, human trafficking involves Action, Means and Purpose. If one condition in each of these categories is met, a person has been trafficked.*

Traffickers undertake **ACTION** using **MEANS** for the **PURPOSE** of exploiting people.

recruitment  
transfer receipt  
**ACTION**  
transportation  
harbouring



abduction force  
threat/coercion  
**MEANS**  
abuse of power  
fraud/deception



servitude forced labour  
sexual exploitation  
**PURPOSE**  
removal of organs  
slavery or similar practice

## FIGHTING THE STEREOTYPES:

About 1 in 4 victims are male. Women and minors are not always victims - they can also be the traffickers.

Labour trafficking makes up close to half of the human trafficking cases in Canada. This includes work in construction, agriculture, retail, hotels, restaurants, nail salons, and in private homes as nannies/caregivers.

Victims are not only from outside of Canada. Although migrant workers, refugees, and immigrants are some of vulnerable populations, over half of the victims are Canadian citizens. Other vulnerable populations in Canada include indigenous women, homeless youth, and those who are socially or economically disadvantaged.



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# HUMAN TRAFFICKING

1.

LET YOUR TEAM KNOW THAT YOU ARE GOING TO SCREEN THE PATIENT FOR HUMAN TRAFFICKING.

2.

TALK TO THE PATIENT WITHOUT THE ACCOMPANYING TRAFFICKER PRESENT.

3.

PROVIDE A SAFE ENVIRONMENT AND LET THE PATIENT KNOW THAT YOU ARE HERE TO HELP.

4.

ALLOW THE PATIENT TO DECIDE THE STEPS THEY WANT TO TAKE IN RECEIVING CARE.

- Request professional translation services if needed
- Do not refer to the accompanying person as "trafficker"
- Allow the patient to tell his/her story
- Avoid blaming statements e.g. Why are you staying with... when he/she obviously treats you poorly?
- Screen for violence after you have gained the patient's trust
- Use language that the patient is comfortable with
- Be able to explain why you are asking certain questions, and do not ask more than you need to.

## HELPFUL QUESTIONS TO ASK:

\*Some sites may have a forensic nurse complete the full screen once you have identified someone as a potential victim. You can also request the help of a social worker to complete the full screen.

- It is my practice to ask all of my patients about violence, is it alright for me to ask you a few questions?
- I would like to ask you some questions about your safety so I can take care of you, is that ok?
- Have you ever felt unsafe from someone else?
- Have you ever been physically hurt or threatened by someone?
- Do you feel like your family is threatened?
- Have you ever been forced to do something you did not want to do?
- Have you ever had your ID or legal documents controlled by someone else?
- Can you leave your job if you want to?
- What are your work/living conditions like?
- Have you ever had your money controlled by someone else?

If the victim is a minor, contact **Child Protective Services**.

For all other victims, offer to contact **911** or **Crime Stoppers**.

If the patient does not want to report the crime, offer a referral to a social worker and provide information for contacting local services/shelters assisting victims.

Document the patient's decision and your actions.

If you believe that the patient, yourself, or your health care team are in immediate danger, **contact the police** regardless of the patient's decision. If you ever suspect human trafficking, you can call Crime Stoppers anonymously, however you cannot provide any patient identifiers without his/her permission.



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# SOCIAL DETERMINANTS OF DRUG USE ABUSE AND OVERDOSE RISK ENVIRONMENT

Social determinants directly shape health risk behaviours such as substance use and create environments that can exacerbate health consequences of drug use.

## SOCIAL FACTORS THAT CONTRIBUTE TO HEALTH OF DRUG USERS



*Social determinants and the health of drug users: socioeconomic status, homelessness, and incarceration. Adapted from Galea S and Vlahov D, 2002.<sup>1</sup>*

- **Socioeconomic status** – affects risk behaviour itself, access to quality care, discrimination, poor education and lack of preventive behaviour
- **Homelessness** – increases risk behaviours, decreases access to medical care including drug treatment (ie, methadone maintenance programs), lack of social support
- **Incarceration** – can increase risk behaviour and create cycle of incarceration-low SES for repeat offenders (return to high-risk environments)
- **Ethnicity** – minorities experience disproportionately high adverse health outcomes from drug use
- **Inequality** – unequal income distribution independently associated with overdose risk<sup>2</sup>
- **Built environment** – deterioration of external environment associated with fatal drug overdose<sup>3</sup>

## SOCIAL AND STRUCTURAL ASPECTS OF THE OVERDOSE RISK ENVIRONMENT<sup>3</sup>

### PHYSICAL

- Detoxification and drug treatment facilities (e.g. supervised injection sites)
- Medical institutions (e.g. overdose prevention counselling before release from detox)

### SOCIAL

- Home environment (e.g. overdose prevention education materials and naloxone)
- Ambulance type (e.g. equip with naloxone)
- Family (e.g. family education on harm reduction approaches)
- Law enforcement (e.g. overdose prevention and response interventions)
- Medical & community attitudes (e.g. training on overdose recognition & against stigma)

### ECONOMIC POLICY

- Cost of naloxone and drug treatment (e.g. no/low cost distribution of naloxone)
- Pharmacies' naloxone availability (e.g. improve naloxone access)
- Community CPR and rescue breathing training
- Increase number of narcological ambulances
- Revise hospital detox policies
- Legal status of methadone and buprenorphine
- Coordination and data access on fatal overdoses in the community
- Laws governing drug use, health, welfare, civil rights

### SOURCES

1. Galea S and Vlahov D. 2002. Public Health Reports, 117 (Suppl 1), S135-S145.
2. Galea S, et al. 2003. *Drug Alcohol Dependence*, 70(2): 139-148.
3. Green TC, et al. 2009. *International Journal of Drug Policy*, 20: 270-276.
4. Hembree C, et al. 2005. *Health & Place*, 11(2): 147-156.



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# TOOLS FOR ADDRESSING DRUG ABUSE FOR CLINICIANS

The Opioid Risk Tool has been shown to be effective in assessing risk of addiction to opioids based on previous experiences in a patient's life prior to prescribing opioids.

## OPIOID RISK TOOL (ORT)

Questionnaire developed by Lynn R. Webster, MD to assess risk of opioid addiction

MARK EACH BOX THAT APPLIES	FEMALE	MALE
<b>FAMILY HISTORY OF SUBSTANCE ABUSE</b>		
Alcohol	<input type="checkbox"/> 1	<input type="checkbox"/> 3
Illegal Drugs	<input type="checkbox"/> 2	<input type="checkbox"/> 3
Rx Drugs	<input type="checkbox"/> 4	<input type="checkbox"/> 4
<b>PERSONAL HISTORY OF SUBSTANCE ABUSE</b>		
Alcohol	<input type="checkbox"/> 3	<input type="checkbox"/> 3
Illegal Drugs	<input type="checkbox"/> 4	<input type="checkbox"/> 4
Rx Drugs	<input type="checkbox"/> 5	<input type="checkbox"/> 5
<b>AGE B/W 16-45 YEARS</b>	<input type="checkbox"/> 1	<input type="checkbox"/> 1
<b>HISTORY OF PREADOLESCENT SEXUAL ABUSE</b>	<input type="checkbox"/> 3	<input type="checkbox"/> 0
<b>PSYCHOLOGIC DISEASE</b>		
ADD, OCD, bipolar, schizophrenia	<input type="checkbox"/> 2	<input type="checkbox"/> 2
Depression	<input type="checkbox"/> 1	<input type="checkbox"/> 1
<b>SCORING TOTALS</b>		

### ADMINISTRATION

On initial visit.  
Prior to opioid therapy.

### SCORING (RISK)

0-3: low  
4-7: moderate  
>8: high

When assessing a patient for opioid abuse or drug abuse in general, the DAST-10 (Drug Abuse Screening Tool) can be used. It can be found online here:

<https://www.drugabuse.gov/sites/default/files/files/DAST-10.pdf>

### SOURCE

1. Webster, L. R. and Webster, R. M. (2005), Pain Medicine, 6: 432-442.



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# MIGRANT & REFUGEE HEALTH

Infectious Diseases	LEGEND	Women's Health
Mental Health & Physical and Emotional Maltreatment	Chronic and Non-Communicable Diseases	

Chest X-Ray	All immigrants and refugees 11 years of age and over
Urinalysis	All immigrants and refugees 5 years of age and over

<b>DO VACCINATE</b>	
Diphtheria, pertussis, tetanus and polio	All adult and children immigrants with missing or uncertain immunization records
Hepatitis B	Those who are negative for all three markers
HPV	9-26 year old female patients
Measles, mumps and rubella	All adult and children immigrants with missing or uncertain immunization records
Varicella	All immigrant children < 13 years of age without prior serologic testing

<b>DO SCREEN</b>	
Cervical cytology	Sexually active women
Contraception	Immigrant women of reproductive age
Dental disease	All adult immigrants and all immigrant children and adults
Depression	Adults, if an integrated treatment program is available
Diabetes mellitus (Type II)	Immigrants and refugees > 35 years of age from ethnic groups at high risk for type 2 diabetes (those from South Asia, Latin America and Africa)
Hepatitis B	Adults and children from countries where the sero-prevalence of chronic hepatitis B virus infection is moderate or high (i.e. $\geq 2\%$ positive for hepatitis B surface antigen), such as Africa, Asia and Eastern Europe
Hepatitis C	All immigrants and refugees from regions with prevalence of disease $\geq 3\%$ (this excludes South Asia, Western Europe, North America, Central America and South America)
HIV	With informed consent, all adolescents and adults from countries where HIV prevalence is greater than 1% (sub-Saharan Africa, parts of the Caribbean and Thailand).
Schistosoma	Refugees newly arriving from Africa
Iron-deficiency anaemia	Immigrant women of reproductive age and immigrant/refugee children aged one to four years
Syphilis	All immigrants and refugees 15 years of age and older
Strongyloides	Refugees newly arriving from Southeast Asia and Africa
Tuberculosis	Tuberculin skin test for patients under 50 years of age from countries with a high incidence of TB
Varicella	All immigrants and refugees from tropical countries $\geq 13$ years of age.
Vision health	Perform age-appropriate screening for visual impairment.



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# MIGRANT & REFUGEE HEALTH

Infectious Diseases	LEGEND	Women's Health
Mental Health & Physical and Emotional Maltreatment	Chronic and Non-Communicable Diseases	
<b>DO NOT ROUTINELY SCREEN</b>		
Child maltreatment	Be alert for signs and symptoms of child maltreatment during physical and mental examinations, and assess further when reasonable doubt exists or after patient disclosure.	
Intimate partner violence	Be alert for potential signs and symptoms related to intimate partner violence, and assess further when reasonable doubt exists or after patient disclosure.	
Malaria	Be alert for symptomatic malaria in migrants who have lived or travelled in malaria-endemic regions within the previous 3 months (suspect malaria if fever is present or person migrated from sub-Saharan Africa).	
Post-traumatic stress disorder	Be alert for signs and symptoms of post-traumatic stress disorder (unexplained somatic symptoms, sleep-disorders or mental health disorders such as depression or panic disorder).	
<b>CULTURE SHOCK</b>		

Not everyone will experience culture shock, however it can take months to present so do not rule it out if the patient does not present with the following immediately.

- LONELINESS
- CHANGES IN SLEEP PATTERNS
- LETHARGY
- LACK OF CONFIDENCE
- IRRATIONAL ANGER
- IRRITABILITY
- UNWILLINGNESS TO INTERACT WITH OTHERS
- DEPRESSION
- LONGING FOR FAMILY
- HOSTILITY TOWARD NEW CULTURE

## TRANSLATION

DO NOT use children as translators as they may be unable to comprehend the level of information, thus creating a difficult power dynamic between the child and the parents. Professional translation services should be used whenever available.

Familiarize yourself with local services available to help migrants transition and encourage them to find local groups of people from the same background that continue practising their culture. Remember that some medical conditions such as mental health may not be openly discussed in other countries and as a result patients may be reluctant to talk about such topics.



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"Guidelines adapted from: Pottie K, Greenaway C, Feightner J, Welch V, Swinkels H, Rashid M, et al. Evidence-based clinical guidelines for immigrants and refugees. CMAJ 2011;183(12):E824e925. Special thanks to Catholic Social Services Edmonton for providing additional information."