Summary of Internal Medicine Scheduling Working Group Report - August 2023

# Executive Summary

The group began work in September 2022 with the goal of reviewing scheduling processes and setting priorities for improving resident scheduling for residents, training sites and clinical rotations, as well as program administrators. This was a collaborative working group that met frequently between September and November 2022 and rapidly established key priorities to be addressed in this work.

Eight key priorities guided the work done by this working group and key scheduling stakeholders, with measurable success for most recommended changes. I am highlighting here the core work of the group:

1. Reintroduction of career choices for incoming PGY1s was modelled and successfully implemented, with all PGY1s being assigned their first choice, and more than three quarters being assigned all 3 top choice specialties, without any adverse impact on the wider scheduling priorities.
2. Priorities for PGY3 rotation scheduling around the Royal College Examination were reviewed in depth and changes were made with extensive resident input.
3. Through detailed work at every stage of scheduling and the production of user-friendly datasets, the number of residents scheduled across blocks and across sites has been smoothed out with fewer blocks below minimum allocations; the same efforts have significantly improved the consistency of residents in call pools across the year.
4. Despite the work above and other changes and interventions, scheduling timelines were not extended.

A huge amount of work was put into making the scheduling process so successful for the 2023-24 year and I am thankful for the opportunity, and hopeful to continue to work closely with my colleagues who are equally engaged in scheduling going forward.

Zac Feilchenfeld, MD, MHPE, FRCPC
Chair, Internal Medicine Scheduling Working Group

# Priorities and Quality Metrics

1. Career choice for PGY1s
	* A major scheduling priority for residents was to (re-)introduce an option to indicate internal medicine subspecialties of interest to be completed in PGY1 (PGY1 residents have 4 blocks of CTU, 2 blocks of Cardiology and 1 block of nephrology, so there are 6 blocks available for other subspecialties)
	* Metrics for success: Proportion of residents scheduled for their 1st/2nd/3rd choices in PGY1
	* Control metric: Impact on number of rotations below minimum allotment
	* Outcomes:
		+ Success metrics:
			- 100% of PGY1s were assigned their 1st choice
			- 96% were assigned their 2nd choice
			- 81% were assigned their 3rd choice
			- 100% were assigned at least 2 of their top 3 choices
			- 77% were assigned all 3 choices
		+ Control metric:
			- The number of blocks below minimum allotment in the 2023-24 schedule was 53.
	* **Bottom Line: This was a successful intervention with no obvious adverse impact.**
2. Royal College study time and rotation sequence
	* Since the GIM Redesign, it has not been possible to exclude PGY3s from CTU rotations around the Royal College Exam; the hope was that since this block is not as intense (in terms of work load and hours) compared with before the redesign, that this would be less problematic.
	* Residents requested a review of other rotations perceived to be challenging in the months before and around the exams, including the sequence of rotations.
	* The Royal College Exam for 2024 is scheduled towards the end of the 3rd week of Block 9.
		+ Both for preservation of resident study time and preventing excessive absences on CTU rotations, all (with two special exceptions at the direction of the PD) PGY3s were excluded from CTU in Block 9.
	* The other priority was to avoid stretches of multiple challenging rotations in sequence ahead of the exam.
	* Metrics for success:
		+ Proportion of PGY3s NOT scheduled on CTU in Block 9: 97% (two PGY3s on CTU Block 9 were put there at their request)
		+ Proportion of PGY3s NOT scheduled on 3 challenging blocks in a row between Blocks 6-9: 100%
		+ Proportion of PGY3s NOT scheduled on 3 challenging blocks in a row between Blocks 10 and 13 (RC Oral Exam in early Block 13): 100%
		+ Proportion of PGY3s scheduled on CTU in Block 8: 25%
			- CTU OR THP: 31%
		+ Proportion of PGY3s scheduled on CTU in Block 12: 33%
			- CTU OR THP: 37%
		+ Proportion of PGY3s scheduled for CTU in BOTH Block 8 and 12: 10%
			- CTU OR THP: 17%
	* **Bottom Line:** **Largely successful for most parts of this intervention, though a small number of residents scheduled for “challenging” rotations ahead of both parts of the exam.**
	* Additional component of pre-RC exam priority is protected time ahead of the exam, which has been done in a synchronized way for past few years; PGY2 RPC reps were presented with proposed plan for 2024 exams in April 2022, had widespread endorsement of proposal from cohort.
3. Vacation improvements
	* Vacation scheduling has been a long-time challenge both for residents and program administrators, especially ahead of the beginning of the academic year.
	* The baseline vacation scheduling system required many emails sent via a prolonged sequence to ensure appropriate approvals, lacking transparency and perceived to be too slow.
		+ Additionally, a first come, first served process for the start-of-year vacation requests felt to be inequitable and challenging.
	* **Program administrators and DOM staff incorporated input, built and successfully launched the first phase of an integrated online vacation requesting program. As of July 2023, most vacation requests from core IM residents are now online.**
4. Consistency of resident numbers on rotations
	* In prior years, there has been considerable variation of the number of residents assigned to rotations block-to-block.
		+ One measure of this is the number of blocks below their minimum allotment (as noted above, average for past 10 years was 75 blocks per year, with a range of 24-114).
	* For ease of discussion, the number of blocks below minimum allocation and their distribution between sites and specialties is the preferred metric:
		+ At baseline (over the past 10 years), the average number of rotations below minimum allocation was 75 blocks per year.
		+ Allocations have changed over time. Looking at the past 5 years, the average number below minimum allocations was still 77 blocks per year.
		+ **In 2023-24, the number of blocks below their minimum allocations (as of August 29, 2023) is 53.**
	* **Bottom Line: This intervention required a lot of work but was quite successful within the limits of current resident numbers and allocations.**
5. Consistency of resident numbers in call pools
	* The scheduling algorithm does not account for call pool needs, the balance of senior and junior residents, nor off-service senior residents that go in to ensure that call pools are balanced, ensuring consistent numbers of call shifts across residents, sites, and blocks.
	* The easiest objective measure of this is the range of variability of the total number of residents in the call pool across the year.
	* **The average number of residents in all core site call pools over the past 10 years was 177 residents (same over the past 5 years)**.
	* With this year’s attention paid to this aspect of scheduling, despite the number of residents per block being the same (176) as in past years, block-to-block variability was significantly reduced.
	* **Bottom Line: We were successful in scheduling a more consistent number of residents to be available for call pools across blocks and across sites.**
6. Understanding of scheduling rules and processes
	* Communication of scheduling rules and processes remains a work in progress, and has not been measured in a rigorous way as yet.
	* A detailed rotation reference table is available to all residents through the resident resource portal (Quercus) to provide easy-to-access information about different rotation options (especially relating to electives) and aid in understanding which types of rotations are most flexible in terms of ease of rotation changes (this work led by resident representatives of the scheduling committee).
	* Detailed presentations to each cohort including the incoming PGY1 cohort were also provided to try to ensure everyone is fully informed of scheduling processes.
7. Administrative work load after schedules distributed
	* Measures of administrative workload have not been established. **Communication with the program lead scheduler indicates a much lower volume of rotation change requests this year as compared with the past two years**. This may be related to improved understanding or other scheduling interventions.
8. Timeline to have schedules out
	* Shortening the timeline for scheduling is limited by many factors outside of our program’s control. Since the CaRMS timeline moved later post-COVID, the last phase of scheduling (PGY1s including off-service PGY1s) has been pushed later.
	* **This year (2023), schedules were disseminated as planned on May 12 with very few revisions required before dissemination to residents.**
	* For 2024, PGY1 CaRMS Match Day is March 19, which is slightly sooner than 2023 (March 22) and considerably sooner than 2022 (April 13) or 2021 (April 20). However, Match Day used to be 2-3 weeks earlier (late February/first week of March).
	* Without a major change to the CaRMS Match timing, schedule release timing is unlikely to change very much, though scheduling administrators regularly review timelines for any areas for improvement.
	* **Despite the added work noted above to balance above-mentioned priorities, timelines were not extended.**

# Future steps

* Proposed future steps for this working group:
	1. Re-convene welcoming new resident members who may be interested in participating, reviewing the work done last year and generating any new priorities
	2. Communicate via this report and presentations to the DOM and RPC this fall
	3. Clarify as yet undefined metrics (especially understanding of processes and administrative workload)
	4. On-going coordination with scheduling team (including ORBS team)