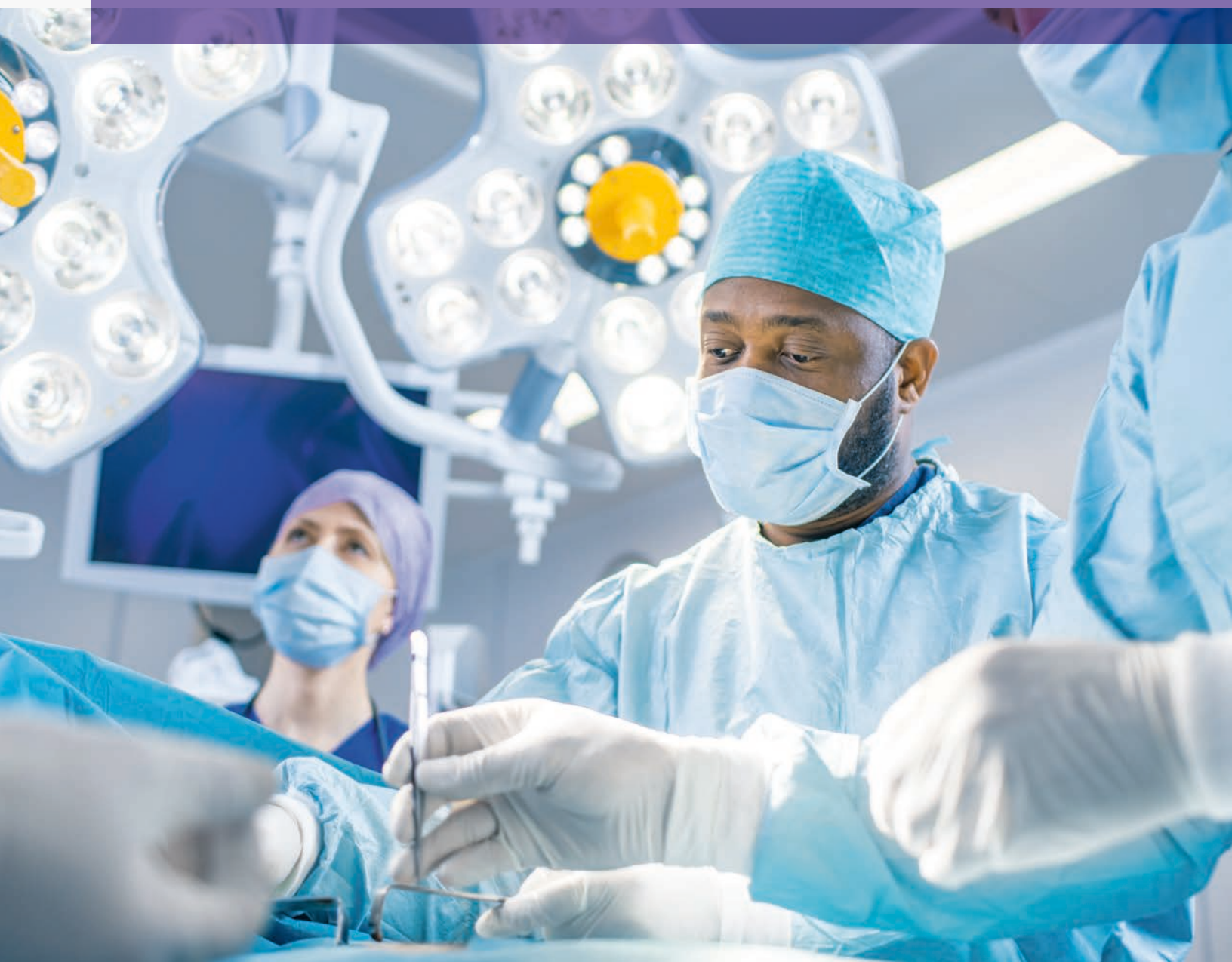


CASE STUDY — VANCOUVER GENERAL HOSPITAL

## How to Simplify Physician Scheduling in Complex Hospital Settings





# Summary

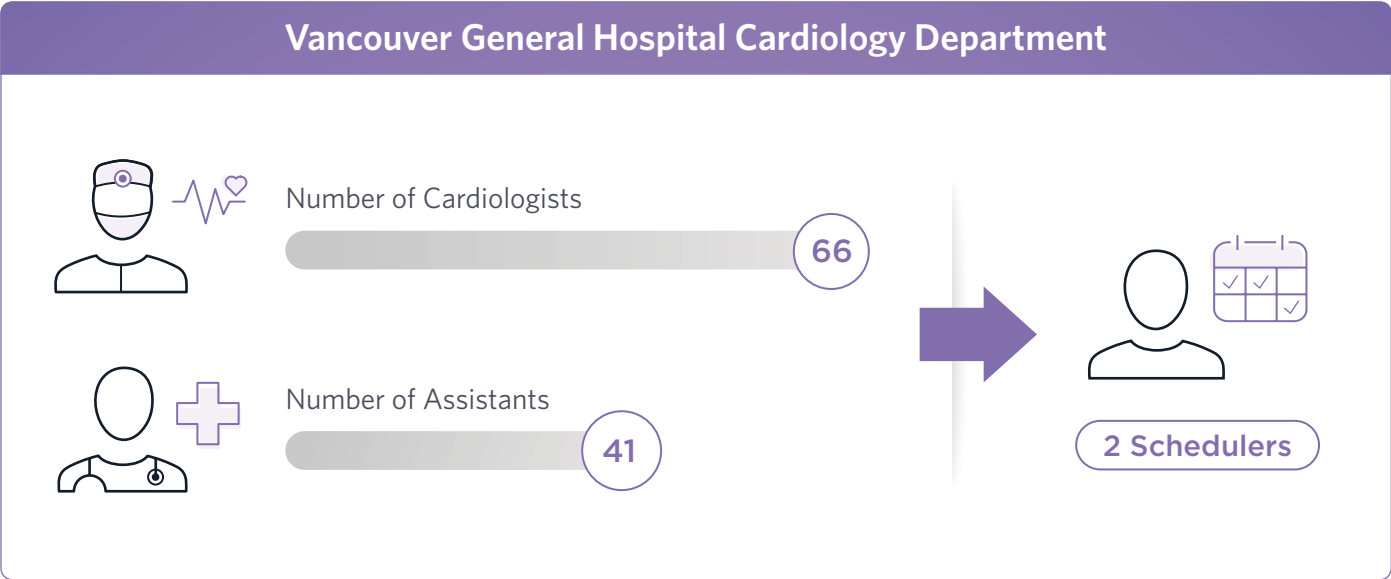
For the Cardiology Department of the Vancouver General Hospital, scheduling is a highly complex challenge. Since the department is composed of more than 60 cardiologists deployed at different sites around the city, with almost 50 different types of shifts, finding a pragmatic solution was a priority.

After exploring the various options available on the market, the department opted for a solution developed in Canada to ensure maximum security and to be assured of working with a team that knows the reality of the Canadian health system.

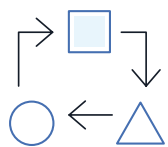
Since the solution was implemented, the scheduling challenges encountered by the department have been successfully met. Creating a schedule is a much faster process, swapping shifts is easier, ensuring optimal coverage is easier, and communication errors are far less frequent.

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# Challenges Facing the Cardiology Department



## 1. The Complexity of the Schedule Planning Process

Since there are a large number of stakeholders involved and many shift types, not to mention the four health facilities where cardiologists work, the planning of a single schedule used to take many dozens of hours. Despite the time invested, it was difficult to ensure an optimal and fair distribution of shifts within the department.



## 2. The High Number of Stakeholders Involved in the Absence Request Process

Whenever a cardiologist was making an absence request, the scheduler had to communicate with managers at different sites to ensure that there was no scheduling conflict, and each site operated with independent schedule procedures.



## 3. The Difficulty to Ensure Complete Coverage

The scheduler was required to manually check each of the shift assignments to ensure that there was no breach in the coverage for the cardiology department. This process took an enormous amount of time and involved the risk of non-coverage when there was an error.



## 4. The Lack of Data to Distribute Shifts Fairly Among Cardiologists

In the absence of a solution specifically designed for medical specialists, the hospital cardiology department had difficulty ensuring an equitable distribution for certain work tasks. Due to the exchange of shifts, the initial schedule changed significantly during the planned period, and it was impossible to rigorously follow-up every change to ensure a fair treatment for all.

### Key Factors of the Schedules Complexity



**49**

Shift Types



**4**

Different Sites



**+100**

Stakeholders  
Involved



**10**

Shifts Requiring  
a 24/7 Coverage





## 5. The Risk of Communication Errors After Shift Swaps

When cardiologists exchanged shifts with each other manually, this information could inadvertently be misdirected so that omissions sometimes occurred. Confusion in shift assignments or difficulty in reaching the right on-call cardiologist involved the risk of compromising patient safety.



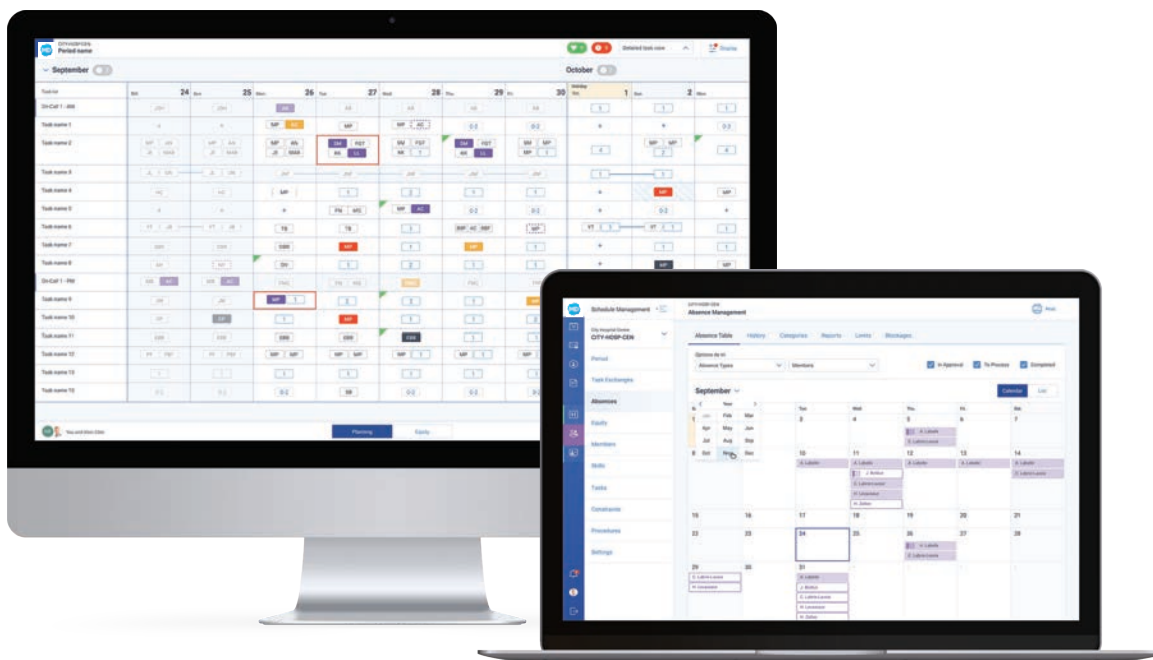
## 6. The Imminent Departure of Schedulers

So while at the same time as the schedules for the Cardiology Department were becoming more and more complex, the people responsible for manually creating and managing these schedules were about to retire. It was imperative that the knowledge concerning the structure and rules for the maintenance of the schedule should not be monopolized by one or two people, but that this knowledge should be incorporated into a computerized solution in order to ensure the continuity of the scheduling function.



# The Selected Scheduling Solution

The Cardiology Department at the Vancouver General Hospital was keen to use a Canadian solution to meet its schedule management challenges. Here are the main features used by the department to optimize its processes and meet its challenges.



## 1. Automated Planning

The Cardiology Department now has an automated planning tool designed around such complex planning variables as:

- Absences
- Physician preferences
- Rules specific to the medical team
- Desired distribution of on-call shifts
- Contractual agreements
- Skills

Authorized staff can now create a schedule for 66 cardiologists by activating a step-by-step automated procedure that is both flexible and fast, thereby gaining almost one hundred hours. Then the proposed schedule can be adjusted manually if needed.

### Examples of Rules for Automatically Granting Physicians Requests

- No more than five consecutive night shifts for cardiologists
- No on-call shift for a cardiologist who was on-call during the last two weeks.
- The shift named "X" always requires 24/7 coverage

## 2. Real-Time Schedule Updates

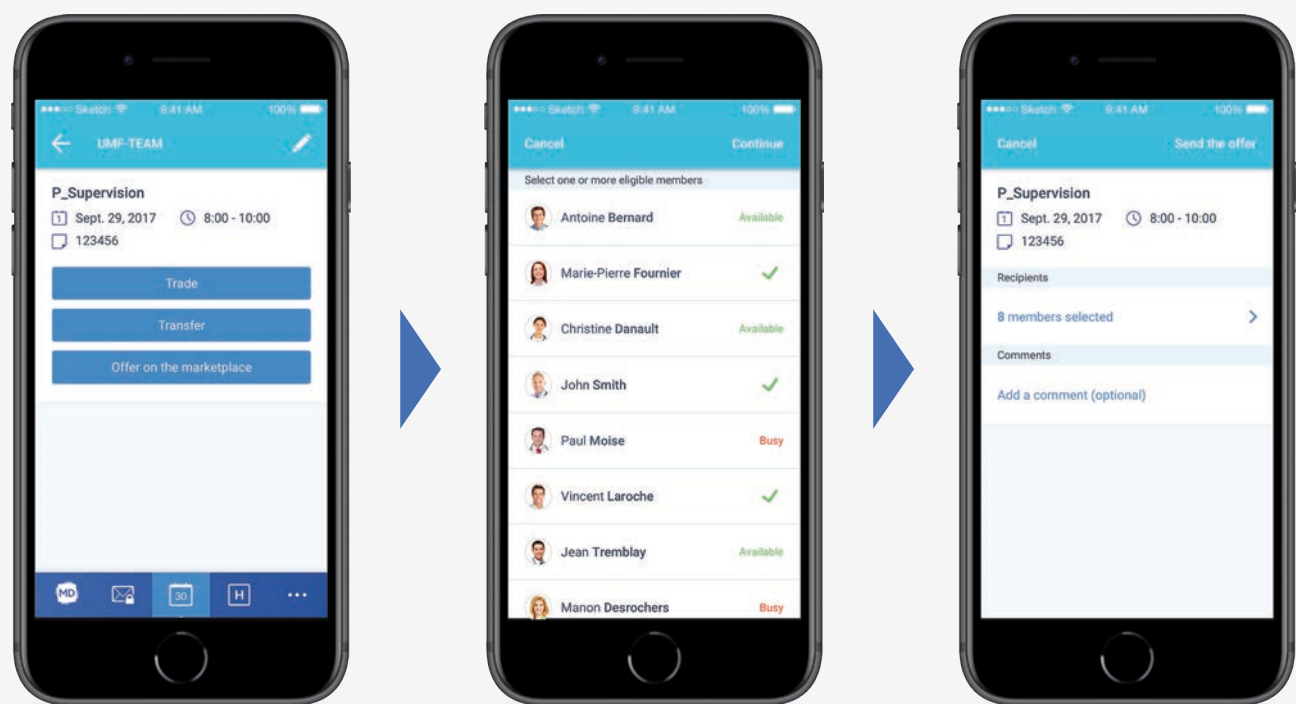
The Cardiology Department now has access to a schedule that is updated in real time whenever a change is made and the schedule is accessible from any device.

The scheduler ensures that authorized personnel at the various Vancouver General Hospital sites have access to up-to-date information at all times, thereby reducing the risk of miscommunication and saving a lot of time for all stakeholders.

## 3. Shift Swaps Between Physicians

Physicians can now swap shifts with their colleagues directly from their own electronic agendas, without a scheduler having to become involved with the change. When requests are approved or declined, the physicians concerned are notified and the change is made instantly.

Requests for on-call exchanges are processed much faster than before, the risk that a shift swap is forgotten is reduced considerably, and physicians can be more autonomous in managing their schedules.



## 4. Equity Reports

Schedulers can now extract a summary file indicating how many shifts have been assigned to a physician over a given period and according to what criteria, such as: the number of weekends, holidays, Friday evenings, on-call time slots or even for particular shifts.

PetalMD’s solution provides access to accurate statistics based on the group’s criteria, which offers an excellent overview on the cardiologists’ schedules, as well as of the equity of the shift distribution. The statistics automatically reflect the schedule, which eliminates the risk of errors in manual transcribing the data. Cardiologists are now assured to see the equity rules of their department respected.

EQUITY			
	G_Cardio /WEEK	Hemo HCM/DAY	Hemo HCM/EVE
Q Allan (SA)		9	0
Q Auger (DA)	5		13
Q Boucher (JB)	0	2	
Q Kappen (RK)	1	0	7
Q Manos (DM)	4	7	2
Q Simon (IS)		6	
> Physicians non eligible (50)			
Σ Total		107	
🎯 Target		113	

**Legend:**

Dashed

Value under target

Circle

Value over the target

Green Full Circle

Perfect target

Green

Exact value or very close to the target

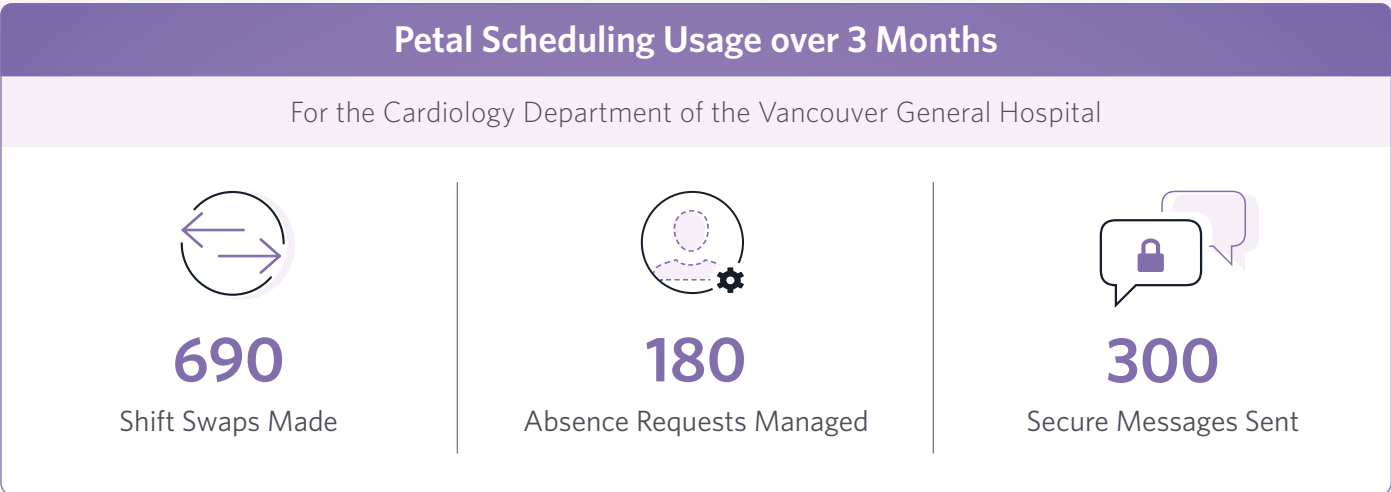
Red

Value far from the target

## 5. Secure Messaging

By acquiring the Petal Scheduling solution, the Cardiology Department also has access to secure messaging developed by PetalMD. This messaging service allows the various stakeholders to:

- Communicate effectively and confidentially
- Share photos, videos and other documents
- Quickly get advice from colleagues for emergency situations





# The Implementation Process

The schedulers for the Cardiology Department of the Vancouver General Hospital worked in collaboration with the PetalMD team in order to facilitate the transition to the new scheduling solution and its adoption by the cardiologists.

## 1 - Planning the Implementation

- First setup call
- Identification of all the stakeholders essential to the implementation
- Planning the *go-live* date
- Production and approval of the implementation planning

## 2- Collecting and Analysing the Department Schedules

- Consolidating the listing of cardiologists and administrative staff
- Designation of access rights for the 100+ members
- Compiling a sample of the department's schedules
- Detailed analysis of the data

## 3 - Configuring the Solution

- Configuration of all users and their access rights
- Creation of a schedule template
- Validation of the schedule template

## 4 - Go Live

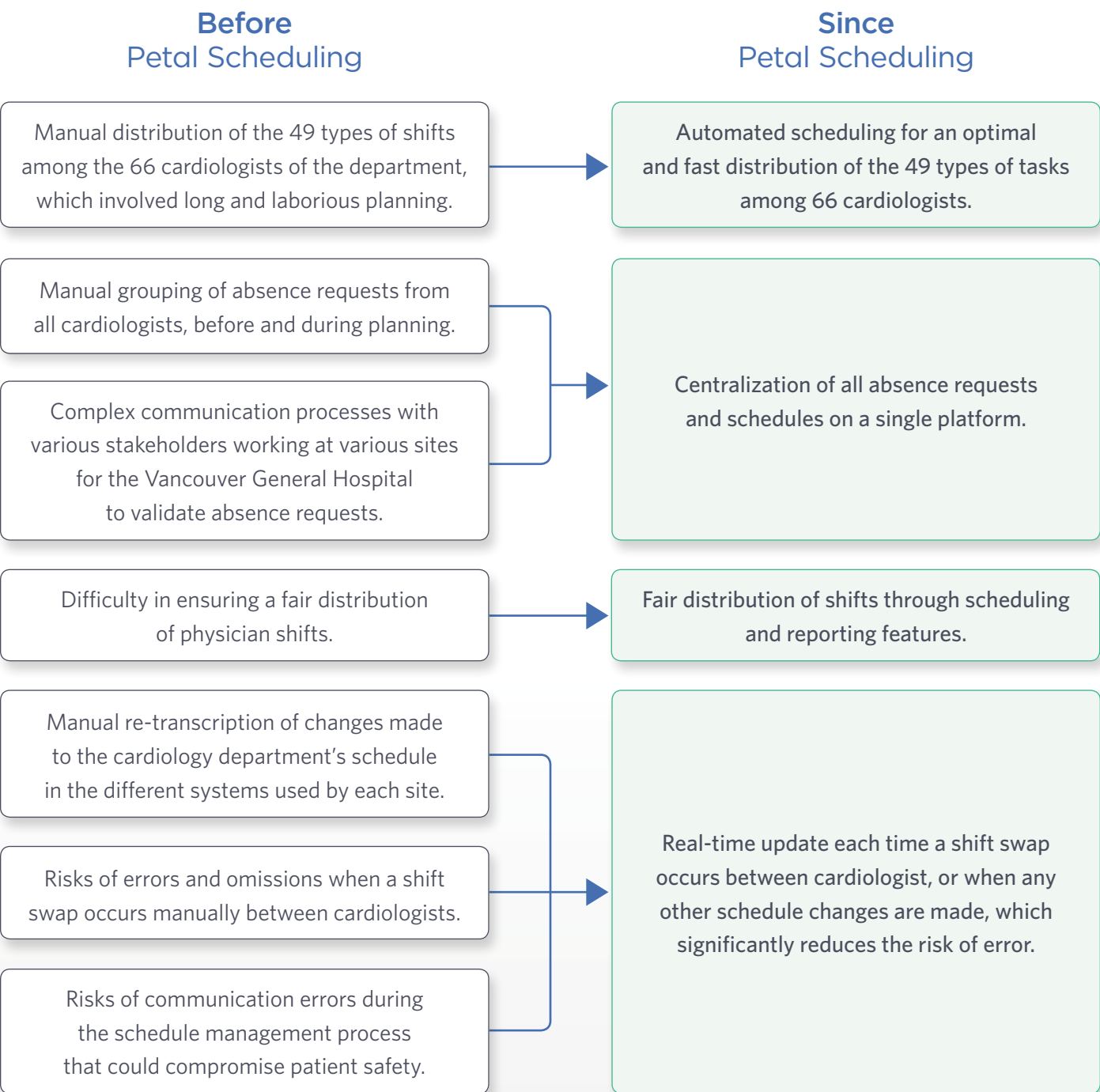
- Training of schedule managers
- Communication with users regarding account activation
- Account activation for the entire group of cardiologists

## 5 - Adjustments and Postmortem

- Status on deployment and adoption rate
- Adjustments of automated procedures and group configuration according to the department's needs
- Access to technical support

# Results

The challenges faced by the Cardiology Department of the Vancouver General Hospital with regards to schedule management were successfully addressed. In addition to saving time and eliminating most of the risk related to communication errors, the department can now ensure optimal coverage of medical responsibilities and fairness in shift distribution.



## Testimonials

*"We wanted to use a solution developed in Canada to meet the planning challenges related to the complexity of our cardiology department. With PetalMD, we have found a solution that fully meets our expectations."*

- Faisal Aziz, Physician and Cardiology Department Coordinator, Vancouver General Hospital

*"The service and technical support offered by the PetalMD team is outstanding. Most of our inquiries are answered the same day and we can see the progress of our other requests."*

- Katherine Kullik, Cardiology Department Planner, Vancouver General Hospital

*"Automated scheduling tools saves us a lot of time and shift trades between cardiologists are now much easier. Now that we know the benefits of Petal Scheduling's automated schedules, we would never go back."*

- Faisal Aziz, médecin et coordonnateur du département de cardiologie, Vancouver General Hospital



**We would like to thank the Cardiology Department of the Vancouver General Hospital** for their collaboration in the making of this case study.

# Discover Petal Scheduling with a Personalized Demonstration

You will see the features of Petal Scheduling in action and be able to ask your questions to one of our specialized consultants. This will allow you to better understand how these productivity tools fit the reality and special characteristics of your medical service.

*Call us at 1-888-949-8601 to request a demonstration!*



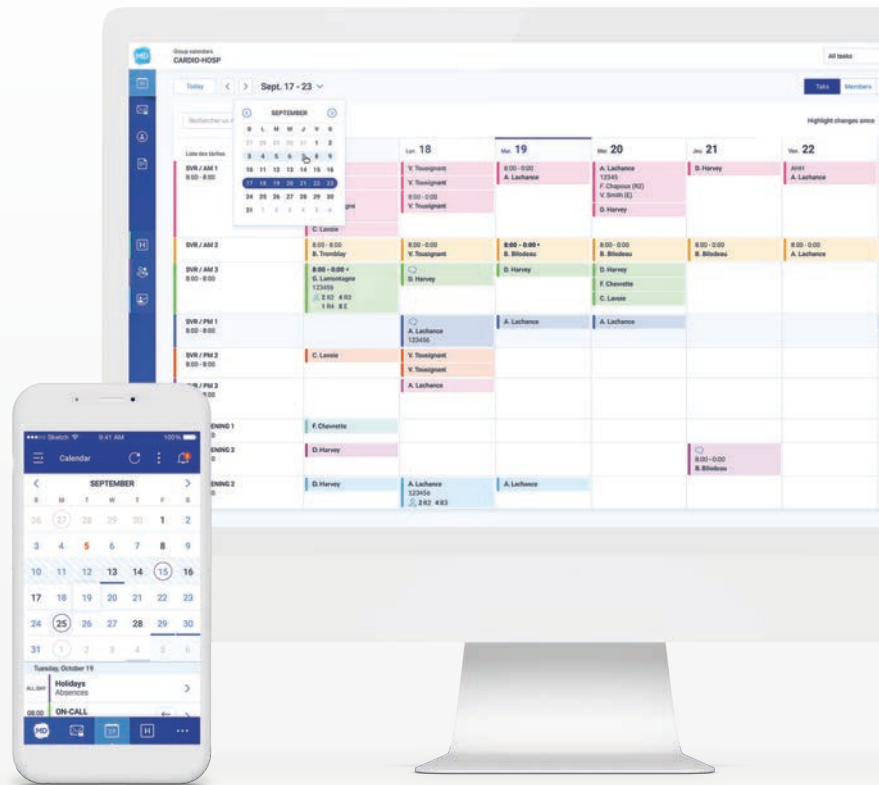
**40,000**  
Healthcare  
Professionals



**1,400**  
Hospital  
Departments



**200**  
Health  
Facilities



A Canadian leader in the digital health sector, PetalMD develops innovative Web solutions to simplify the daily tasks of physicians and improve the efficiency of healthcare facilities.

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