

# Simpler, Faster Queue and Payment System Through 1 Queue 1 Bill (1Q1B)

LIM SUH FEN, LAY SOCK YEE



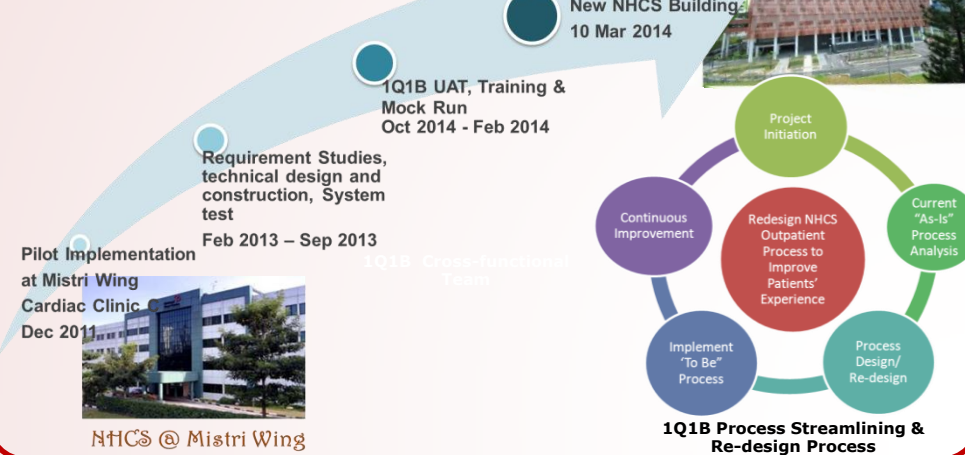
**National Heart Centre Singapore**  
SingHealth

## 1. BACKGROUND & INTRODUCTION

National Heart Centre Singapore (NHCS) is the first public healthcare institution in Singapore to introduce an integrated queue and payment system called **1 Queue 1 Bill (1Q1B)** in the specialist outpatient clinic.

In line with the new building plan to be a digital heart hospital that harness the latest health-care technology to enhance operational efficiencies and guided by the patient-centric goals, the 12-storey new building has introduced the 1Q1B system to deliver seamless service to cardiac patients.

**The 1Q1B Journey** is a long but fulfilling journey. It starts with the pilot implementation in the NHCS clinic C at Mistri Wing in December 2011 to the full scale implementation in the new NHCS building in March 2014.



## 2. METHODOLOGY

Cross functional project team involving **Clinic, IT, Pharmacy, Cardiac Lab, Business office, Operations** and the diagnostic/investigation departments was formed to design the **1Q1B system**.

Processes are streamlined and services location are redesigned for 1Q1B. The 1Q1B system provides one stop cardiac services at clinic level. Patients can have their blood test, ECG/Pacemaker checks, medication order, medisave claims and consultation with the doctor done within the clinic.

Queue & billing system is redesigned to allow queue numbers to be transferable between service locations and payment for same day visits to be consolidated.

### Cardiac Clinic B 1Q1B Floor Layout

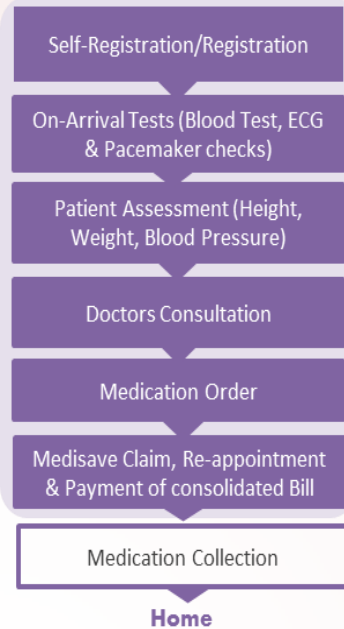


### Functional Component of 1Q1B:

- Patient Journey Planner
- Self Registration Kiosk
- Smart Journey Planning
- Queue Management/ Patient Journey
- 1 Stop Billing
- E-Charge Form
- Reports

## 3. RESULTS

### 1Q1B Patient Journey



### Simplified Patient Process

System enables the transfer of same queue no. to various service locations to direct patients.

Additional reduction in total turnaround time due to improvement to workflow

- ✓ Medisave claims, payment and re-appointment is processed in a single counter
- ✓ Concurrent activities for medication order and packing

### Intelligent Queue System & Enhanced Billing System

Single queue number for all services of the day.

Single point billing to consolidate consultation charges, investigation charges and medication charges for the day.

- ✓ No multiple Queues
- ✓ No multiple Registrations
- ✓ No multiple Payments

### Smart Journey Planning system

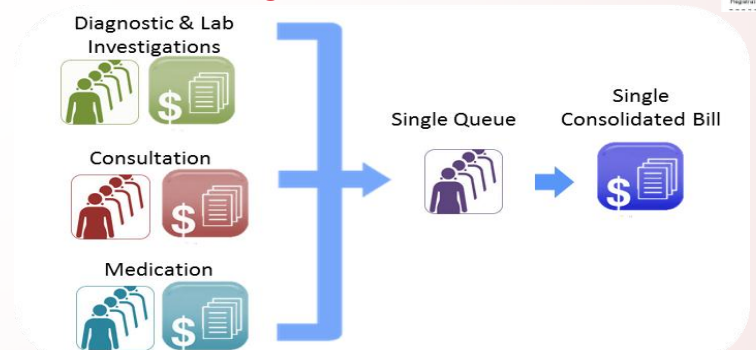
Dynamically re-arrange the sequence of service stations in Patient Journey Plan based on the estimated Waiting Time of the service stations and the dependency of each Service Type

7055

Service Station	Queue No.	Waiting Time
Self-Registration/Registration	1	10 min
On-Arrival Tests (Blood Test, ECG & Pacemaker checks)	2	15 min
Patient Assessment (Height, Weight, Blood Pressure)	3	10 min
Doctors Consultation	4	15 min
Medication Order	5	10 min
Medication Packing	6	10 min
Medication Collection	7	10 min
Medisave Claim, Re-appointment & Payment of consolidated Bill	8	10 min

Please take a note and see well attend to you kindly  
Preparation Date: 11 Jan 2014 10:50

### Tangible Benefits & Outcomes



✓ Single queue number system & enhanced billing system **cut down average time of 15 minutes** on queuing/re-queuing and making multiple payments.

✓ Prescriptions are transferred electronically to the Pharmacy after medication order. It allows concurrent packing of medication while patients are making payment and scheduling their next appointment. **1Q1B patients are served within 5 minutes** at the pharmacy.

### Patients

- ✓ Hassle free visit
- ✓ Cut down excessive travelling and unnecessary movements
- ✓ Cut down waiting time due to multiple queuing and payment

### Staff

- ✓ Improve operations efficiency
- ✓ Better teamwork & collaboration among staff & departments
- ✓ Enhance staff skill & knowledge

## 4. CONCLUSION

In anticipation of the surge in patients come 2030, NHCS will see an estimated 200,000 patients at its outpatient clinic, almost twice the number seen in 2013. While the expansion in capacity is obvious upon entering the clinic, numerous subtle enhancements to the clinic facilities due to 1Q1B have been made to create a more convenient and comfortable environment for patients.

## 5. SUSTAINABILITY & SPIN-OFFS

The success of 1Q1 system has become a SingHealth cluster wide project for phased implementation in various institutions. Institutions in other clusters are also in the process of evaluating and implementing 1Q1B. The scalability of the 1Q1B system has also led to several enhancements to its key features to serve a wider infrastructure.