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# Wheelchair Combing Team: **Improving Customer Service by Shortening Waiting Time**

## Introduction

Each month, porters are tasked to promptly respond and transport an average of 6,000 wheelchair (WC) patient transfer cases safely. Seamless patient movement within the hospital is an integral component to their treatment process. The average porters' response time was 8 minutes. Several challenges were identified:

## Intervention

A careful review of the root causes led to several measures:





- > Maintaining a sufficient number of WC in circulation to support the high workload especially during peak period can be daunting; &
- > Search time for available WC during peak period can lead to slower response time for patients, thus affecting the service level.

**Porters' Response Time (PRT) -** measured from the assignment time to the start time at the requesting wards





A WC Combing Team, comprising 3-4 porters, was deployed during peak hours to comb each block.

- Jan 2018



During night shift, 2 porters are deployed to comb for WC to ensure no shortfall of WC when handing over to the next shift.



Controllers also assigned WC transfer cases to porters whose last job was also WC cases to eliminate the need to search for WC. .

Improvement in

**Response (%)** 

#### **Porters' Response Time (PRT)**

Ave PRT	0:08:05	0:07:08	11.8%
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July 2017 –

**Dec 2017** 

**Table 1: Average PRT Improvement Results** 

Feb 2018 –

**Jul 2018** 

## Aim

The improvement project aimed to deliver prompt WC transfer services so that the patients could reach the destination wards and receive the needed care within the shortest possible time. The objectives are:



To reduce average porters' response time by 10% within the next 6 months, ensuring shorter waiting time for patients.

To eliminate porters' frustration in searching for limited wheelchair so as not to affect their motivation in delivering quality service to the patients.



## Methodology

The project team adopted a cause-effect analysis to identify the root causes behind the challenges in facilitating speedier WC transfer services, based on four major categories:

#### Figure 1: Average Porters' Response Time (PRT) for WC transfer cases from Jul 2017 to Jul 2018



#### A. Environment

**Distance from porter's last location to the WC parking** station affect travelling time. WC location is unknown.

### **B. Method**

Assignment of WC transfer cases based on First IN, First OUT principle. WC would be parked if other non-WC cases were assigned.

#### C. People

As porters were occupied with their ongoing cases, no retrieval for the scattered WC could be carried out.

#### **D.** Materials

Limited number of wheelchairs for inpatient and outpatient use.

Current Response Time to Wheelchair Transfer Requests

#### 0:05:00

0:10:00

Jul-17 Aug-17 Sep-17 Oct-17 Nov-17 Dec-17 Jan-18 Feb-18 Mar-18 Apr-18 May-18 Jun-18 Jul-18

## Conclusion

With more WC made available during peak periods, the porters are empowered to deliver prompt and quality services, ensuring a smooth transition of care from one location to another within the SGH Campus.

Depending on the situational and operational context, it may be scalable in the healthcare portering sector. Future research directions include exploring the installation of RFID tags to track the locations of the individual WC for location tracking, out of campus movement and inventory count.