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

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:

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.

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

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

Results

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<th>Table 1: Average PRT Improvement Results</th>
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<td>Ave PRT</td>
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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. Further 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.