

Improving Wait Time for Blood Taking at Clinic B2B Treatment Room

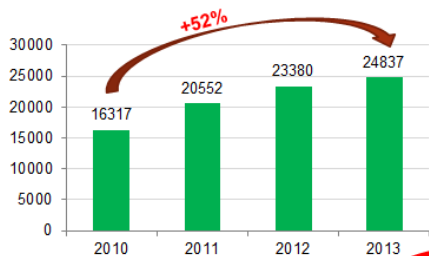


Ms Teo Kaiting, Mr Wang Xun Wu
SSN Mah Yoke, SN Toh Lai Choo, SN Karen Jan
Ms Kalsom Bte Shariff, Ms Stephania Sim, Ms Chris Woo
Dr Hoi Wai Han, Dr Daniel Chew
Tan Tock Seng Hospital



Introduction

Clinic B2B in TTSH runs outpatient services for Endocrinology and Renal Medicine. The nature of the disciplines coupled with increasing workload have resulted in long wait time for blood taking, which occurs in the clinic's treatment room.



- 95% of patients had their blood taken within 109 mins
- Patients waited an average of 30 min for their blood to be taken



- High number of blood tests required due to the nature of Endocrinology discipline, e.g. testing of fasting blood glucose, HbA1c, etc
- Clinic B2B's load is 20% more compared to the next highest outpatient unit

This project aims to:

- Decrease wait time for blood taking at treatment room, and
- Improve patient satisfaction at treatment room.

Methodology

The project team formed was multi-disciplinary, and included colleagues from Clinic Operations, Nursing, Medical, Laboratory, and Kaizen Office.

Using Lean Methodology for quality improvement, the team employed the Value Stream Mapping tool. This involves analysing the current state, identifying areas of value and waste, then streamlining processes to map out a future state. This allowed root cause analysis (see Fig.1), derivation of solution approaches, and formulation of action plans.

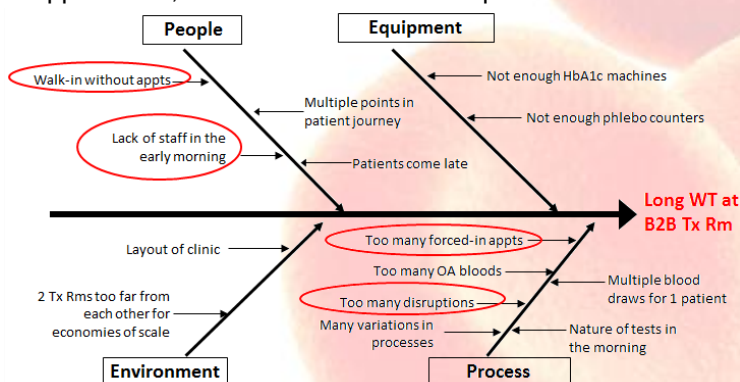


Fig.1. Root-cause analysis was performed and represented by an Ishikawa diagram, illustrating the reasons for long wait time for blood taking.

Actions Taken (I)

The solution approach was centred around 4 areas:

Appointment logic and scheduling

- To improve the appointment slots planning and prioritisation of different types of blood test

Resource Optimisation

- To review resource usage in terms of nursing manpower deployment, appointment slots available, and blood taking chairs available

Communications

- To improve patient education regarding keeping to appointment time and improving the understanding of blood tests instructions

Reduction of Disruptions

- To have a better system to minimize disruptions such as adhoc queries from patients and walk in's

Actions Taken (II)

The team formulated and carried out a multi-pronged action plan, engaging beyond the project team to include more colleagues in these improvements (see Fig.2).

- Increased capacity from 4 to 6 chairs due to improved layout in treatment room
- Increased efficiency with additional equipment to match manpower number
- Standardisation of how different blood tests are prioritised
- Reduction of unnecessary staff movement by relocation of fridge into treatment room
- Redeployment of staff from other clinics to beef up resources during peak hours
- Accurate allocation of appointment slot duration to prevent overbooking
- Standard workflow done up for PSAs to triage referrals, previously done by nurses
- Labels added to appointment slots made it easier for accurate booking
- Posters were used to communicate blood test steps & discourage walk-ins

Fig.2. A summary of improvements and initiatives implemented at Clinic B2B in efforts to decrease patients' wait time for blood taking in a holistic manner.

Results

Over Aug 2013 to Mar 2014, through resource optimisation, streamlining processes, and improving communication with patients and internal stakeholders, the team achieved:

- 33% reduction in 95th percentile wait time from 109 min to 73 min (see Fig 3)
- 43% reduction in average wait time from 30 min to 17 min (see Fig. 4)
- 14% improvement in patient satisfaction
- Nurses omitted 30 min of their daily administrative duties to focus on patient care as a part of PSA job design
- Increased clinic overall capacity with a gain of one additional consultation room

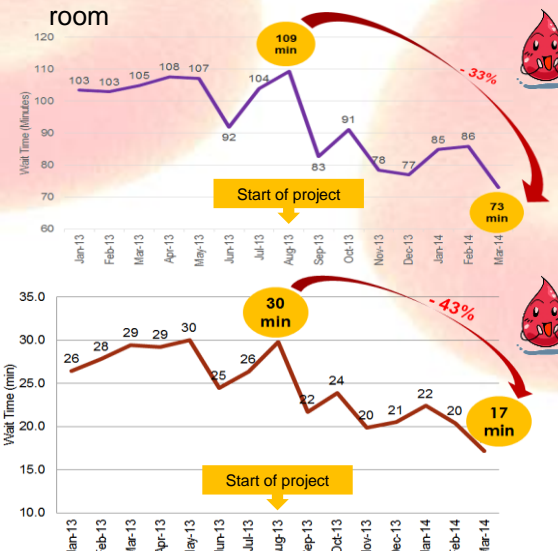


Fig.3. Graph showing the 95th percentile Wait Time (minutes) for blood-taking at Clinic B2B treatment room.

Fig.4. Graph showing the Average Wait Time (minutes) for blood-taking at Clinic B2B treatment room

Conclusion

The team achieved these results through data-driven decision-making and continuous engagement and empowerment of staff. The main root causes of the long wait were found to be flaws in appointment scheduling logic and gaps in resource optimisation. By tackling these areas, a reduction in wait time was achieved. The different perspectives from various stakeholders were also crucial in achieving the targeted outcomes.