



**Service Priorities and Programmes**  
**Electronic Presentations**

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**Application of Lean management in a specialist out-patient clinic resulted in sustained shortening of waiting time and improved patient satisfaction**

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**Introduction**

Patients often spend hours during AIDS clinic follow-up and the waiting room sometimes becomes overcrowded. These factors may affect patient satisfaction on our service.

**Objectives**

The objective of this program was to streamline clinic workflow in order to shorten the waiting time in the clinic and enhance efficiency.

**Methodology**

Lean management was adopted to eliminate non-value-added activities, improve system efficiency and be responsive to the needs of the patients. The project cycle included 6 different stages: Define, Measure, Analyze, Improve, Implement and Control. A project group was formed in October 2011 and membership included different disciplines such as doctors, nurses, clerical staffs and phlebotomist coordinator. Patient group representatives of community partners were also invited to join the discussion and share the opinions of the patients. The program was piloted in March 2012 and fully implemented in June 2012.

**Result**

Multiple improvement strategies were designed and developed in the program. The patient flow and care pathway was standardized. The blood taking time slot was rearranged. Nursing activities were adjusted to cater new workflow. The role of clerical staffs was strengthened. While in the waiting room, patients were asked to fill a newly designed information checklist to enhance doctor-patient communication. Other Lean improvement methodology such as Poka Yoke and visual management were also applied. Baseline data was collected in November-December 2011. The mean of waiting time and total time (waiting time + processing time) were 170 min and 201 min,

respectively. Pilot implementation of program in March 2012 resulted in shortening of waiting time by 29% (mean difference = 49 min). The total time was also shortened (mean = 156 min) while the total processing time was not significantly different. The program was fully implemented in June 2012 and the final set of data was collected in Oct 2012, confirming sustained improvement with mean of total time = 124 min. Regarding patient satisfaction on waiting time in the clinic, baseline patient response was satisfactory 30%, acceptable 53% and unsatisfactory 17%; post-implementation patient response was satisfactory 59%, acceptable 41% and unsatisfactory 0%. Lean management was successfully adopted in a specialist out-patient clinic to streamline workflow resulted in shortened waiting time in the clinic and improved patient satisfaction. Thorough planning, staff partnership & patient engagement were key success factors.