To Redesign Patient Flow from the Main Entrance to the Prescription Handover Counter (Triage) at the Outpatient Pharmacy

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Background

During 10.30am-2pm and 3pm-5.30pm, there were 42 "Lost Patients" out of 250 observed, looking for the prescription drop-off counter (Triage) at the Outpatient Pharmacy (OP). This translated into 69.6 seconds of time-wasted by each "Lost Patient".

Aim

To improve our patients' experience upon entering OP so that they can locate the Triage counter in a timely and efficient manner.

Methodology

🦶 A survey was conducted on the "Lost Patients" to assess the reason(s) for being unable to locate the Triage.

🦶 A series of single and combination various commonly used directional displays (e.g. Footprints, Standing Signage, Lights and Yellow Lines) were carried out using.

🦶 A target of ≤9% of "Lost Patients" was set

🦶 Feedback was sought from 100 patients and 30 staff, so as to evaluate the effectiveness of each solution tested.

🦶 Design of Experiment's Factorial Test-system, Response Plot and Decision Matrix chart were used to analyze and compare the results.

Results

The main reasons for not able to locate the Triage were:
1) The standing crowd in the waiting area obscure the view of the Triage;
2) Color scheme of counters look similar;
3) Absence of directional signage to the Triage; and
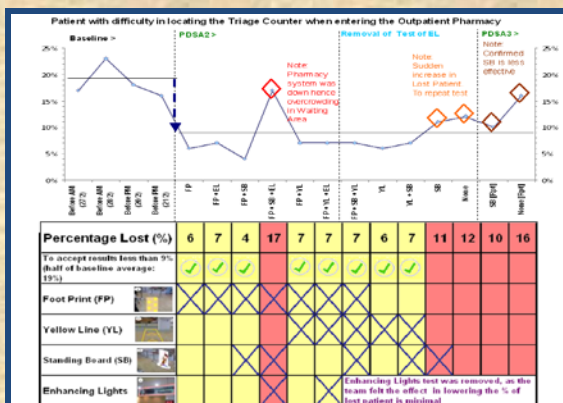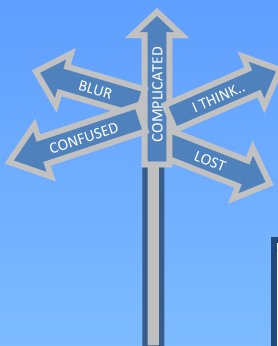4) The cashier counters were often mistaken for Triage.
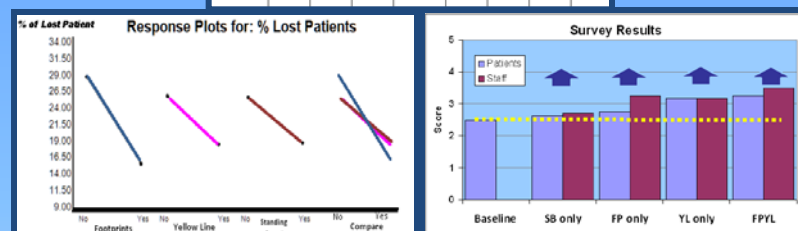
4 Signages

16 Trial-Tests

>2700 Subjects

Over 2 weeks

1 Final Solution

🦶Most tests conducted were found to be effective except for the "Enhancing Lights Signage".
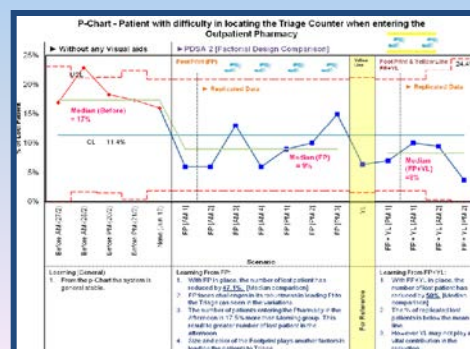🦶 2 tests were repeated for consistency and validity as they showed poor results.

The Decision Matrix, Charts and Patient & Staff Survey showed that Footprints and Yellow Lines are more effective than "Standing Board"

A third PDCA-cycle to validate the effectivity of 1)"Footprint" vs 2) "Yellow Lines" vs 3)"Footprint & Yellow Lines".

Improved by more than 50%!

Counter 3

"Footprint" emerged as the most successful and cost-effective directional display to guide patients to the Triage. The average time taken (6.3 sec) to locate the counter by "Footprints" was significantly improved as compared to without signage (31.4 sec) ($p=0.0001$). The percentage of "Lost Patients" was also reduced by more than half, from 19% down to 9%.

Conclusion

🦶 Simple "Footprint" Stickers on the floor help reduce the time taken by patients to locate the Triage Counter.
🦶 We managed to improve the patient flow to the Triage by slightly more than 50%
🦶 Patients are able to locate the Triage with better ease
🦶 Patients and Staff are satisfied with the enhancement
🦶 Non-slip, warm-coloured floor stickers were selected as they are cost-effective, safe for patients, easy to maintain and implement.

Future Works

🦶 Re-visit the design of footprint stickers
🦶 Explore other alternative indoor display at main entrance of OP
🦶 Explore bigger font size, pictures, directional arrows and colours to improve visual communications

"Strive not to be a success, but rather to be of value. "
-Albert Einstein