

Using Electronic Dashboard to Reduce Waiting Time and Improve Patient Flow in Emergency Department in King Abdulaziz Specialist Hospital– TAIIF

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BACKGROUND

ED is a critical area of any hospital. Waiting time and Average length of stay are important measures of quality of care in ED. Poor monitoring of patient flow leads to increase ALOS which affect patient safety that is an increasing problem for hospital worldwide. These effects, including poor patient outcomes, appropriate management, delay patient dissatisfaction and physician burnout.

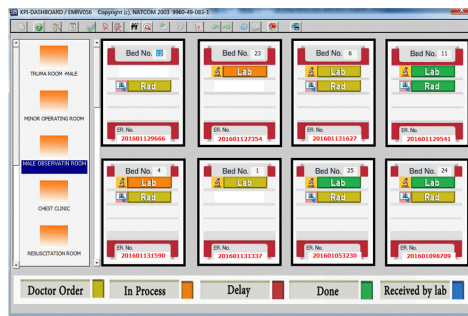
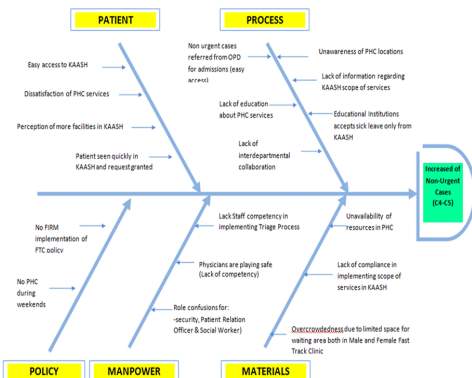
AIM

To improve patient flow monitoring, So Average Length of Stay reduced to 4 hours for critically patients (C1, C2, and C3) by the end of August 2016

METHODOLOGY

- Use LEAN methodology to provide perfect value to the customer (patient).
- Start to collect base line data for 6 months.
- Data is collected biweekly for 2 months then monthly.

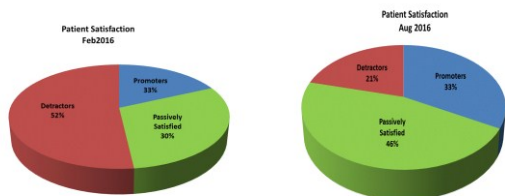
INTERVENTION



- Dashboard design system to be started.
- Dashboard is an electronic screen board showing the requested investigation (LAB, X-RAY and Consultation) and ALOS.
- If there is an increase in TAT > one hour or consultation > 30 minutes; an alarm will be shown that there is a delay so the physician can take an action.
- Staff training on Dashboard.
- ED LAB was created and activated.
- Training on Canadian Triage Categories
- Training on visual triage.

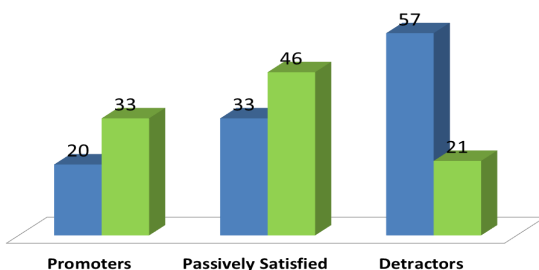
OUTCOME

Using the electronic dashboard in the emergency department has led to significant reduction in the waiting time and Average Length of stay. Subsequently, there is increase in the overall patient satisfaction and patient flow.



Patient Satisfaction NPS

■ Feb-16 ■ Aug-16



Progress of ED KPI (Waiting Time)

CATEGORY	BASELINE DATA	1 st Bi weekly report	2 nd Bi weekly report	3 rd Bi weekly report	4 th Bi weekly report
C1	0:02	0:07	0:03	00:01	00:02
C2	0:05	0:08	0:17	00:08	00:08
C3	0:30	0:23	0:20	00:21	00:19
C4	0:30	0:31	0:40	00:30	00:38
C5	00:42	00:30	00:44	00:34	00:21

Progress of ED KPI (ALOS)

CATEGORY	BASELINE DATA	1 st Bi weekly report	2 nd Bi weekly report	3 rd Bi weekly report	4 th Bi weekly report
C1	5:03	2:22	2:46	2:12	3:16
C2	3:26	3:01	3:15	2:52	2:56
C3	2:27	2:52	2:57	2:38	2:53
C4	1:23	1:08	1:27	1:15	1:27
C5	1:02	1:13	0:49	0:49	1:13

