Performance of a Kaizen Event to Improve Patient Throughput and Satisfaction in the University Health Center Obstetrics and Gynecology Clinic

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Background
For over ten years, patient satisfaction with the care delivered at the OB/GYN clinic at the University Health Center has remained poor, resulting in patients deciding to seek care elsewhere. The patients that remain are subjected to office visits lasting upwards of 4-5 hours, and some leave on a daily basis before being seen by a provider. Many previous attempts to make improvements to the patient experience have been unsuccessful in decreasing patient throughput time or improving patient satisfaction.

Kaizen is a Japanese term meaning “improvement” (lit. “change for better”). This principle has been adopted in many industries, including healthcare. A Kaizen event specifically refers to a concentrated workshop, during which a team is assembled to evaluate and improve a process within a 3-5 day period.

Methods
Plan: Individuals representing personnel from each aspect of the patient encounter were identified and invited to participate as members of the Kaizen team. A three-week planning schedule was developed and all materials were prepared for the Kaizen event. The event itself took place February 22-26, 2016.
Do: Time studies were conducted to determine the average length of each portion of the patient encounter. The patient turnaround time (TAT) was measured from the time a patient checked in to the time the patient left the clinic. The project lead interviewed key clinic personnel to identify the actual work being performed and compared that stated work with the clinic manager's list of standard work for each position in the clinic. From these interviews, a responsibility matrix was constructed which listed all tasks performed by each personnel type and the person responsible for their completion. The Kaizen team performed a walk-through of the clinic to identify bottlenecks and non-value added steps that impeded patient flow through the clinic. Floor plans of the clinic were obtained and studied to identify points of inefficient work-flow and underutilized resources.
Study: The results of each of these steps were compiled (labeled “current state”) and distributed to the Kaizen team for evaluation and identification of additional non-value added steps. Over the course of two days, a new process for the patient visit was developed, with the inefficiencies removed (labeled “future state”).
Act: All clinic personnel were educated on the new process the following day, and the new process was implemented in the clinic on March 16, 2016.

Turnaround Time (TAT)

<table>
<thead>
<tr>
<th></th>
<th>Current State</th>
<th>Future State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident</td>
<td>151</td>
<td>108</td>
</tr>
<tr>
<td>Nurse Practitioner</td>
<td>126</td>
<td>65</td>
</tr>
</tbody>
</table>

Floorplan (Current state):

Floorplan (Future state):

Major Changes:
1. RN performs patient intake
2. Ultrasound is made mobile
3. Increase clinic capacity by 25%
4. Unidirectional flow of patient through clinic
5. Decrease number of rooms a patient enters by 50%

Conclusions
A Kaizen event is a method by which an inefficient process can be quickly improved with minimal capital investment by simultaneous elimination of non-value added steps.