Improving Access and Wait Time in an Ambulatory Endocrinology Clinic

Eric Kuo, Benjamin Wei, Eleanor Phelps, BSN, MA, RN, Chanhong Rhee, MD, MBA
Multi-disciplinary team: Gary Reid, M.D., Perry Beckel, M.D., Alex Trosnow, M.D., Gregory Sees, RN, CMPE, Hilary Trevino, NP, Bobbie Joe Martell

Background

- Outpatient clinics care for patients through scheduled appointments
- Clinics need to optimize timeliness, interacting workflows of multiple staff and health professionals to accommodate multiple patient visits

Opportunity

- Decrease the time patients spend waiting during each visit in order to increase patient access to care via increased clinic efficiency and improve patient satisfaction

Scope

- The ambulatory endocrinology clinic at University of Texas Southwestern (UTSW)

Aim

From June 15, 2015 to August, 2015, derive implementations to:

1. Improve monthly access of patients to endocrinologists, measured by days until third appointment, by 10%
2. Increase Press Ganey patient satisfaction score rankings of “Access” and “Moving Through Visit” by 10 percentile points each

Project Design

Applied DMAIC methodology to improve the clinic’s processes:

1. Define: Defined project with stakeholders of the clinic. Shadowed clinic to construct a detailed process map.
3. Analyze: Utilized multiple tools to capture wait time and its specific components. Collected archived patient satisfaction survey results and considered problems voiced by patients.
4. Pending Implementation: From analysis, brainstormed a list of possible solutions. Ranked ideas according to prioritization matrix, incorporating failure modes effect analysis (FMEA).
5. Implementation: Presented highest-ranking implementations to clinic managers.

Next Steps

- Await approval and support from clinic managers
- Selected changes will be made in the endocrinology clinic
- Data from changes will be collected over the span of a year

Lessons Learned

- Medical students can apply QI methodology to an operating clinic to design implementations for improvement
- 3 months of a summer is enough time for full-time medical students to progress to the implementation phase of DMAIC

Measures of Clinic

B Breakdown of Wait Time During Visit

(A) Breakdown of patients’ wait time during a patient’s clinic visit outside of the physician’s examination room.
- Average total observed time outside of physician's exam room was estimated to be 35 min.
- Total time ranged from 15 min. during “slow” mornings to 90+ min. on “busy” days. (data not shown)

(B) Appointment times were pulled from EPIC based on subtracting check-in time from check-out time.
- Time outside appointment for 20 and 30 min. appointments was close to average duration in pareto chart
- Time outside appointment for 40 and 60 min. appointments was lower than average estimated length in (A)

Changes to Be Made

From quality tools, identified 28 potential implementations for the clinic.

Ranked recommendations according to Prioritization Matrix with weighted criteria:

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact</td>
<td>30%</td>
<td>Total staff and wait time (min)</td>
</tr>
<tr>
<td>Risk Priority Number</td>
<td>25%</td>
<td>Calculated risk</td>
</tr>
<tr>
<td>Ease of Implementation</td>
<td>15%</td>
<td># of start up changes</td>
</tr>
<tr>
<td>Maintenance Cost</td>
<td>15%</td>
<td>USD</td>
</tr>
<tr>
<td>Start-up Cost</td>
<td>10%</td>
<td>USD</td>
</tr>
<tr>
<td>Adaptability to others</td>
<td>5%</td>
<td># of clinic implementations can be applied</td>
</tr>
</tbody>
</table>

Top Ranking Recommendations

<table>
<thead>
<tr>
<th>Workflow/ Problem/ Improvement Opportunity</th>
<th>(Rank) Recommended Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Arrival: Patient does not know how long from parking lot to clinic</td>
<td>(1) Information for patient clearly stating how many minutes in advance to arrive</td>
</tr>
<tr>
<td>Check-In: Clerks need to navigate to multiple areas in system repetitively to print &amp; scan forms for pts</td>
<td>(1) Design “megaprint” and “megascan” buttons that are a one-stop click that handles routine info for each patient</td>
</tr>
<tr>
<td>Pre-Arrival: Patient does not know how long from parking lot to clinic</td>
<td>(1) Information for patient clearly stating how many minutes in advance to arrive</td>
</tr>
<tr>
<td>MOA: ROS not finished online before visit</td>
<td>(2) Give patients ROS form at checkout</td>
</tr>
<tr>
<td>Nurse: Physician/Nurse not documenting samples</td>
<td>(4) Inventory of lot numbers that can be checked off</td>
</tr>
</tbody>
</table>