Improving Bed Turnover Time with a Bed Management System

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Overview

Project Background:
This project was focused on improving a subset of the patient throughput process, bed turnover, through the implementation of a Bed Management System (BMS). The bed turnover process begins when a patient is discharged and ends when the bed is available for the next patient. A multidisciplinary approach was used to identify and address barriers to communication and workflow gaps that cause delay.

Aim Statement:
Reduce bed turnover time from 111 minutes to less than 60 minutes between 9/1/2008 and 2/28/2012.

Goal Alignment:
This project supported the 2010-2015 MD Anderson Strategic Vision goal to Enhance the quality and value of our patient care throughout the cancer care cycle.

Potential Impact of EHR Implementation

When fully functional and exchangeable, the benefits of EHRs offer to a BMS are:
- Improve quality and convenience of patient care
- Increase patient participation in their care
- Improve accuracy of patient placement on primary unit
- Improve care coordination
- Increase practice efficiencies and cost savings

Measures of Success

Success of the project was determined with primary and secondary measures. The baseline metric of 111 minutes was calculated using Healthcare Advisory Board benchmark metrics.

<table>
<thead>
<tr>
<th>Measures of Success</th>
<th>Primary Measures</th>
<th>Secondary Measures</th>
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</thead>
<tbody>
<tr>
<td>Percent of Notification of Discharge entered in BMS</td>
<td>15%</td>
<td>70%</td>
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<tr>
<td>Percent of Dirty Bed Notification entered into the BMS</td>
<td>20%</td>
<td>95%</td>
</tr>
<tr>
<td>Housekeeping Turnaround Time</td>
<td>Decreased from 63 minutes to 49 minutes</td>
<td></td>
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<tr>
<td>Patient Transportation Turnaround Time</td>
<td>Decreased from 72 to 30 minutes</td>
<td></td>
</tr>
<tr>
<td>Total Bed Turnover Time</td>
<td>Decreased from 111 minutes to 49 minutes</td>
<td></td>
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</tbody>
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Results Data

Other innovative features of the new process included:
- Incorporating clinical data with information about individualized patient care needs to assist in accurately matching patients with the right level of care
- Providing nursing and other involved departments with the ability to view the location and admission status of every patient
- Generating electronic work assignments for Housekeeping and Patient Transportation
- Creating a Patient Discharge Escort Program and dedicated room turnaround teams on nine inpatient units to quickly clean, inspect and make minor repairs to rooms

Implementation Plan

The implementation plan included:
- A communication plan to keep all stakeholders informed of the status of the project
- A detailed training and education program to support the implementation of new work processes
- A performance scorecard demonstrating progress on key metrics

Quality Tools

The team used the quality tools of brainstorming, multi-voting, prioritization, Ishikawa diagramming, and process map analysis to determine project focus areas and appropriate interventions. In addition, the team developed a project charter and implementation plan to guide improvement efforts.

Interventions

A multidisciplinary Bed Turnaround Committee was created that identified the following attributes as key selection criteria for the project technology solution:
- An intuitive interface designed for a wide variety of end users
- The ability to easily extract data and reports while preserving patient confidentiality
- An intelligent work engine to automate communications and alerts

Best practices were researched for patient flow processes, and plans were made to implement solutions in a phased approach. A pilot period was also scheduled to take place prior to implementing the solutions institution-wide.

References


