Falling for Kaizen
Using a Kaizen Event to Reduce Resident Harm
By Jackson Bires

BACKGROUND
- Falls constitute 33% of total patient related harm in our Care Center, the largest category of harm we have. In the 4 months prior to our Kaizen event, Water’s Edge had an average fall rate of 6.08/1000 resident days. For comparison, the Agency for Healthcare Research and Quality sets a quality benchmark of 3.29/1000 days.
- The teams goal was to lower the incidents of falls in the care center from 6.26/1000 resident days to the AHRQ benchmark of 3.29/1000 resident falls.

METHODOLOGY
- Our team decided to use a LEAN process approach called a Kaizen event, the implementation arm of LEAN. We gathered an interdisciplinary team made up of administration, nurses, social services, process improvement coordinators, and certified nursing assistants to find a solution.

The Kaizen team started by communicating the situation in SBAR

The team then gathered and voted on initial interventions using the Decision-Making Matrix

The team reconvened monthly to assess progress using the Plan, Do, Study, Act process

INTERVENTIONS
- Through the Decision-Making Matrix and our PDCA, the group came up with many new fall interventions. Here are just a few:
  - Discussion matrix for IDT
  - Post fall huddles
  - Fall risk assessment score definitions
  - Utilize “The 4 P’s”
  - Aroma therapies
  - “Days between falls” tracker

RESULTS

<table>
<thead>
<tr>
<th></th>
<th>Average # of Falls</th>
<th>Average Falls/1000 Resident Days</th>
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<tbody>
<tr>
<td>Baseline Data</td>
<td>8 per month</td>
<td>6.26</td>
</tr>
<tr>
<td>Trial Data</td>
<td>4 per month</td>
<td>3.15</td>
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- The baseline period pulls data before the Kaizen 4/1-8/31 while the trial period pulls data after the Kaizen 9/1-2/28

<table>
<thead>
<tr>
<th>Days Between Falls</th>
<th>Baseline: 4 days</th>
<th>Trial: 8.1 days</th>
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<tbody>
<tr>
<td>Target: &gt;4</td>
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- The Kaizen team believed by bringing awareness to “days since last fall” we could keep fall awareness at the front of everyone’s mind – thus lowering our incidence of falls

<table>
<thead>
<tr>
<th>Confidence In Ability to Prevent Falls</th>
<th>Would You Participate In a Kaizen Again?</th>
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<tbody>
<tr>
<td>Increase Confidence: 66%</td>
<td>Yes: 100%</td>
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<tr>
<td>Maintained Confidence: 33%</td>
<td>No: 0%</td>
</tr>
<tr>
<td>Decreased Confidence: 0%</td>
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OUTCOMES
- Our baseline data reflected a Care Center struggling to control falls:
  - In May the Care Center had 18 falls
  - Record days without falls was 7
- At the end of our trial period the care center showed immense improvement:
  - The Care Center had 0 falls in the entire month of November
  - Achieved a new record of 38 days without a fall
- Perhaps most importantly, more of the falls during the trial were “preventable falls”
  - Preventable falls during baseline period equaled 76%
  - Preventable falls during trial period equaled 90%
- A greater number of preventable falls means we are better at categorizing who is a high fall risk.

CONCLUSIONS
- Water’s Edge found great success in the use of the Kaizen event and a PDCA plan. We conclude that the use of continual process improvement models can outpace more expensive or innovative interventions when not applied to a PDCA or Kaizen model.
- In light of our conclusion that continual process improvement is necessary, we recommend setting a baseline average falls/1000 resident days from our baseline data. If the Care Center has month where falls/1000 is greater than the baseline average, the Kaizen team will reconvene to adjust or add interventions.

Acknowledgments