IOE Lunch & Learn

October 10th, 2014
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Background

• Graduated in 2011 with a B.S.E. in IOE
• Began working for Tefen Consulting after graduating
  – Projects in the Healthcare, Manufacturing, and Semiconductor industries
• Transitioned to the John Hopkins University – Applied Physics Laboratory (JHU/APL)
  – Execute process improvement projects for the Bureau of Navy Medicine (BUMED)
    • Headquarters for Navy healthcare
    • Provides guidance, instruction, and funding to all Navy medical facilities
# Project Experience

<table>
<thead>
<tr>
<th>Project</th>
<th>Scope</th>
<th>Goal</th>
</tr>
</thead>
</table>
| Cardiac Surgery Department  | • Patient process from initial contact with the department through discharge after surgery | • Improve patient satisfaction  
• Assess roles and responsibilities to balance workload |
| Bed Utilization             | • All hospital inpatient units                                        | • Calculate historic bed utilization  
• Create tool to automate utilization analysis |
| Main Operating Room Processes | • Inventory Management  
• Purchasing  
• Patient Flow  
• Sterile Processing  
• Scheduling | • Create an environment that allows for safe, cost effective, and predictable surgery |
| Family Practice Primary Care | • Scheduling  
• Staffing model  
• Patient Flow | • Maximize the number of patients that can be seen using current resources while maintaining quality of care |
Naval Hospital Camp Pendleton (NHCP) MOR

**Workstreams**
- Inventory Management
- Purchasing
- Patient Flow
- Scheduling
- Sterile Processing

**Goal**
Reduce white space throughout the day to increase utilization of the operating rooms and open space for additional cases

**Focus Areas**
1. Pre-op process
2. On-time start
3. Case delays
4. Room turnover
5. Patient flow tracker
Naval Hospital Camp Pendleton (NHCP) MOR

Focus Areas
1. Pre-op process
2. On-time start
3. Case delays
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Top 5 Case Delay Reasons: 1st Case

<table>
<thead>
<tr>
<th>Case Delay Reason</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgeon Not On Floor Pre Interview</td>
<td>15</td>
</tr>
<tr>
<td>Anesthesia Block Delay</td>
<td>13</td>
</tr>
<tr>
<td>Add On</td>
<td>9</td>
</tr>
<tr>
<td>Anatomically Difficult Patient</td>
<td>7</td>
</tr>
<tr>
<td>Patient Late Arrival</td>
<td>6</td>
</tr>
</tbody>
</table>

Current Turnover Time: 28 min

Future Goal:
- +20 min (Wheels In)
- +15 min (Room = Clean)
- +25 min (Wheels In)
- +30 min (Wheels In)

White Space

Close/Apply Dressing

Interview Next Patient

Room Setup

PACU Handoff

Clean

Tech

Anesthesia Tech

Surgeon

Nurse

Anesthesia

Next Patient

Alert Cases Not Checked In: 0
Alert Cases Not in Holding: 0
Cases Remaining: 12
Cases With Issues: 0

OR 1

OR 2

OR 3

OR 4

OR 5

OR 6

On-Hover J. Walker - Checked In
Surgery Dr. Anderson
Anesthesiologist Dr. White
Nurse: Murray
Projected Start: 12:10
Questions?