Improved OR Patient Flow Through RTLS-Based Visual Analytics

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Florida Hospital

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Conflict of Interest

Ashley Simmons, MBA, MBB LSS (Master Blackbelt Lean Six Sigma)

Has no real or apparent conflicts of interest to report.
Agenda

• Who is Florida Hospital
• Change in Healthcare
• Importance of RTLS and Analytics
• RTLS Proof of Concept with Staff Workflow
• RTLS OR Patient Flow & Analytics
• Lessons Learned
• Next Steps
• Benefits Realized
Learning Objectives

• Application of data to patient flow process and efficiency
• Accountability practice behind the data in real-time visibility boards
• Accelerating process improvement and maximizing resources
Realizing for the Value of Health IT

- **Satisfaction:**
  - Improve patient experience by reducing wait times and improved communication to waiting family members
  - Improve staff communication and efficiency

- **Treatment/Clinical:** Improve timeliness in patient care

- **Electronic Information/Data:** Transform real-time data into visual dashboard for immediate decision making and performance analytics

- **Prevention & Patient Education:** Prevent bottlenecks with improved thru-put

- **Savings:** Increase capacity in OR and maximize utilization of staff

http://www.himss.org/ValueSuite
Who is Florida Hospital?

• Founded in 1908 by Adventist Church
• Eight campuses
• Licensed for 2,500+ beds
• Market leader in Central Florida
• Most Wired Award Recipient
• HIMSS Level 6
Adventist Health System Florida Division
Florida Hospital Vision Statement

Florida Hospital will be a global leader providing highly advanced, faith-based healthcare and will lead a sustainable community health system that:

• Improves the experience of care
• Improves the health of our community
• And reduces the per-person cost of healthcare

This system will provide major, relevant contributions to the re-shaping of America’s health care.

Our Mission: Extend the Healing Ministry of Christ
We know we have to...

Cut 20-40% of Costs, Improve the Experience, Increase the Value
Poll Question # 1

What tool do you use to drive improved patient flow?

• Value stream mapping
• Real-time patient location monitoring
• Patient satisfaction scores
• Nothing in particular
How? We have all of these... but what’s missing?
RTLS Data Provides the Context

Real-time Location System (RTLS) meets 2 critical needs

1. Event Alerts
   Adding context to the patients pathway, trending and predictive modeling, actionable data at the right time to the right person

2. Customer Satisfaction
   Real time access, information and flow – engagement in care process, alerts for wait states, knowledge of their progress in their care
Evolution to actionable information

<table>
<thead>
<tr>
<th>Service</th>
<th>N/A</th>
<th>25.3</th>
<th>42.7</th>
<th>29.6</th>
<th>19.2</th>
<th>28.4</th>
<th>72.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Case Starts</td>
<td>N/A</td>
<td>624</td>
<td></td>
<td>261</td>
<td>53</td>
<td>683</td>
<td>633</td>
</tr>
<tr>
<td>PACU Hold Time (Minutes)³</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PACU Holds²</td>
<td></td>
<td>16.9%</td>
<td>78.4%</td>
<td>74.5%</td>
<td>65.2%</td>
<td>86.8%</td>
<td></td>
</tr>
<tr>
<td>PACU Percent Met Goal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

30 days old...

OR Daily Drone Dashboard

24 hours old/ manual/ time consuming

Real time, automated
Celebration Health: A Living Laboratory

• Built 1996, SW Orlando Market
• Chosen to be the health location for the “EPCOT” Celebration Community Plan
• Continuous growth:
  – 203 beds
  – 15 K+ admissions / 75K+ ED Visits
  – High tourist traffic
  – 13,000 + Surgical & Endo
  – Leading robotic surgery site
  – 15,000 surgeons trained annually on robotic and innovative surgical techniques
• Living Laboratory
Methodical Approach

Staff Workflow
- Efficiency
- Standardization
- Productivity
- Unit Design

Patient Experience
- Rounding
- Bedside Report
- Time with Care givers
- IPC Integration
- Patient Family Waiting Room Board

Capacity and Throughput
- Live OR Patient Flow Monitoring
- Equipment Tracking
  - beds, pumps, etc…

Safety
- Hand Hygiene
  - Patient Contact based
- Falls Prevention
  - Bed Integration, live 8/18
- OR Suite and Sterile Supply
  - Temperature/Humidity Monitoring
  - iPads
Poll Question # 2

What is your top barrier to improving OR patient flow?

• Budget/Resource constraints
• Uncertainty about tools, techniques & impact
• Staff resistance/cultural issues
• Competing priorities
OR Throughput
Patient Flow
First Hospital OR Installment
Co-Developing OR Solution

- Needs Assessment (clinical and operations)
- Leveraging RTLS Data Analytics
- RTLS Vendor Pre-Developed Clinic DBs
- FHIL Session
- Phase 1 Implementation
- Fail Fast & Fix
- Phase 2 Implementation
High-level OR Patient Flow

• Basic patient experience and OR utilization dashboards
• Real-time visibility gives staff in each area visibility into the phase “feeding” their area
FHIL Sessions: Concept to Design
Patient Registration

• Patient receives unique RTLS badge
• Educate patient on the purpose and benefits of monitoring their progress through surgery and recovery
• Waiting area is sectioned by exciters on the ceiling to reduce yelling of names
  – Allows staff to quietly walk to the patient’s location when Pre-Op is ready, promoting a peaceful and pleasant environment
Waiting Area

Patient Real-Time Status Screen
## Patient Real-Time Status Screen

### OR Patient Progress Board

<table>
<thead>
<tr>
<th>Patient</th>
<th>Waiting Room</th>
<th>Pre-Op</th>
<th>In Procedure</th>
<th>Recovery</th>
<th>Transit to Unit</th>
<th>Complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>AK 7662</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>AR 4908</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BH 6990</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>BK 9968</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CB 6461</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>CC 7641</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CC 8655</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CM 1133</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>DH 0703</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DL 2862</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DW 5359</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GM 4265</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Takeaway:**
Gives Waiting Family Peace of Mind Knowing the General Location of Loved One
Pre-Op

Real-Time Flow Management and Alerts to Monitor Patient Arrival and Prep Status
Pre-Op

<table>
<thead>
<tr>
<th>Patient</th>
<th>Surgeon</th>
<th>Milestone</th>
<th>Location</th>
<th>Scheduled Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dr. Smith</td>
<td>Pre-Op</td>
<td>Phase 2</td>
<td>12:50</td>
</tr>
<tr>
<td>2</td>
<td>Dr. Johnson</td>
<td>Pre-Op</td>
<td>Waiting 5</td>
<td>13:10</td>
</tr>
<tr>
<td>3</td>
<td>Dr. Patel</td>
<td>Pre-Op</td>
<td>Pre-Op</td>
<td>14:15</td>
</tr>
<tr>
<td>4</td>
<td>Dr. Patel</td>
<td>Pre-Op</td>
<td>Pre-Op</td>
<td>16:35</td>
</tr>
<tr>
<td>5</td>
<td>Dr. Patel</td>
<td>Pre-Op</td>
<td>Pre-Op</td>
<td>12:00</td>
</tr>
<tr>
<td>6</td>
<td>Dr. Patel</td>
<td>Pre-Op</td>
<td>Pre-Op</td>
<td>12:10</td>
</tr>
<tr>
<td>7</td>
<td>Dr. Patel</td>
<td>OR Waiting</td>
<td>OR Waiting Area</td>
<td>12:40</td>
</tr>
<tr>
<td>8</td>
<td>Dr. Patel</td>
<td>Pre-Op</td>
<td>Pre-Op</td>
<td>15:35</td>
</tr>
<tr>
<td>9</td>
<td>Dr. Patel</td>
<td>Pre-Op</td>
<td>Pre-Op</td>
<td>14:05</td>
</tr>
<tr>
<td>10</td>
<td>Dr. Patel</td>
<td>Pre-Op</td>
<td>Pre-Op</td>
<td>13:20</td>
</tr>
</tbody>
</table>

Takeaway: Real-Time Status Updates for Immediate Decision Making and On-time Starts
OR Control Center

OR Map & List View
OR Map View

Takeaway:
Visual Status Updates to Queue Activity
OR Real-Time Analytics

Takeaway:
Daily Insights for Immediate Decision Making vs. 3 Months Out

OR Real Time Status on October 19, 2015

**Waiting Area**
- Average Waiting Time (Min): 108.46
- On Time: 2
- Late for Pre-Op: 5

**Pre-OP**
- Beds in Use: 9
- Beds Available: 1

**PACU**
- Beds in Use: 14
  - Beds Available: 6
  - Blocked Beds: 1
  - Pt's in Closing: 4

**Phase 2**
- Beds in Use: 2
  - Beds Available: 0
  - Blocked Pt's: 2
  - Pt's on Leave: 1

**OR**
- Pt's in Procedure: 0
- Pt's in Closing: 4
- Dirty Rooms: 0
- Rooms Available: 13
- Or Late Start: 9

**OR % of First Case in Time**
- 0%: 0
- 25%: 35%
- 50%: 0%
- 75%: 0%
- 100%: 0%

**Room Turnover**
- Avg Turnover Time: 23.75
  - Turnover Goal Met (%): 25%

**OR Rooms Turnover**
- Avg Turnover Time: 23.75
  - Avg Time of Being Dirty: 8.00
  - Turnover Goal Met (%): 25%

**Endo Rooms Turnover**
- Avg Turnover Time: 0
  - Turnover Goal Met (%): 0%
Pull and Push Data for Monitoring PACU Capacity and Bottlenecks
### PACU

#### Takeaway:
Real-Time Visual Queues for Proactive Patient Management

<table>
<thead>
<tr>
<th>Patient</th>
<th>Milestone</th>
<th>Location</th>
<th>Blocked Reason</th>
<th>Notes</th>
<th>Total Recovery Time</th>
<th>Time to Crit. Met</th>
<th>Closing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block</td>
<td>Unknown</td>
<td>PACU</td>
<td></td>
<td></td>
<td>1h 49m</td>
<td>1h 49m</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>OR 7</td>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>OR 11</td>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Block</td>
<td>Unknown</td>
<td>PACU</td>
<td></td>
<td></td>
<td>1h 58m</td>
<td>1h 58m</td>
<td></td>
</tr>
<tr>
<td>Recovery</td>
<td>PACU</td>
<td></td>
<td>Block</td>
<td>Unit - Pending discharge</td>
<td>46m</td>
<td>46m</td>
<td></td>
</tr>
<tr>
<td>Block</td>
<td>Ready to Leave</td>
<td>PACU</td>
<td>Block</td>
<td>Unit - Pending discharge</td>
<td>2h 39m</td>
<td>34m</td>
<td></td>
</tr>
<tr>
<td>Recovery</td>
<td>PACU</td>
<td></td>
<td></td>
<td></td>
<td>35m</td>
<td>35m</td>
<td></td>
</tr>
<tr>
<td>Block</td>
<td>Unknown</td>
<td>Phase 2</td>
<td></td>
<td></td>
<td>1h 48m</td>
<td>1h 48m</td>
<td></td>
</tr>
</tbody>
</table>
Receiving Inpatient Unit

Pull and Push Data for Monitoring Acute Care Unit Capacity and Bottlenecks
**Unit Status Screen**

- **Takeaway:** Real-Time Capacity Management and Proactive Staffing Assignments

## Transfer coordination

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>Patient Status</th>
<th>Blocked Reason</th>
<th>Location</th>
<th>Unit</th>
<th>Bed</th>
<th>Bed Status</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Out of Room</td>
<td></td>
<td>CEL MAIN - 3rd Floor/Waiting 1</td>
<td>3-C3IU</td>
<td></td>
<td></td>
<td>RM 367, TR 0600, RN 4721</td>
</tr>
<tr>
<td></td>
<td>In Room</td>
<td></td>
<td>CEL MAIN - 3rd Floor/F366</td>
<td>3-C3IU</td>
<td>F366</td>
<td>Bed Assigned</td>
<td>RM 366, TR 1055, RN 4722</td>
</tr>
<tr>
<td></td>
<td>In Room</td>
<td></td>
<td>CEL MAIN - 3rd Floor/F356</td>
<td>3-C3IU</td>
<td>F356</td>
<td>Bed Assigned</td>
<td>RM 356, TR 1100, RN 4713</td>
</tr>
<tr>
<td></td>
<td>In Room</td>
<td></td>
<td>CEL MAIN - 3rd Floor/F344</td>
<td>3-C3IU</td>
<td>F344</td>
<td>Bed Assigned</td>
<td>RM 365, TR 1410, RN 4722</td>
</tr>
<tr>
<td></td>
<td>In Room</td>
<td></td>
<td>CEL MAIN - 3rd Floor/F350</td>
<td>3-C3IU</td>
<td>F350</td>
<td>Bed Assigned</td>
<td>RM 344, TR 0957, RN 4717</td>
</tr>
<tr>
<td></td>
<td>In Room</td>
<td></td>
<td>CEL MAIN - 3rd Floor/F357</td>
<td>3-C3IU</td>
<td>F357</td>
<td>Bed Assigned</td>
<td>RM 347, TR 1400, RN 4717</td>
</tr>
<tr>
<td></td>
<td>In Room</td>
<td></td>
<td>CEL MAIN - 3rd Floor/Nurse_Station_A</td>
<td>3-C3MS</td>
<td></td>
<td></td>
<td>RM 350, TR 1250, RN 4718</td>
</tr>
<tr>
<td></td>
<td>Off Unit</td>
<td></td>
<td>CEL MAIN - 3rd Floor/Waiting 1</td>
<td>3-C3IU</td>
<td></td>
<td></td>
<td>RM 357, TR 1100, RN 4713</td>
</tr>
<tr>
<td></td>
<td>On Unit</td>
<td></td>
<td>CEL MAIN - 3rd Floor/3-C3IU</td>
<td>2-CDU</td>
<td></td>
<td></td>
<td>RM 362, TR 1255, RN 4722</td>
</tr>
<tr>
<td></td>
<td>Blocked - Ready to Leave</td>
<td></td>
<td>CEL MAIN - 3rd Floor/PACU</td>
<td>3-Surgery</td>
<td></td>
<td></td>
<td>RM 353, TR 1400, RN 4719</td>
</tr>
<tr>
<td></td>
<td>Out of Room</td>
<td></td>
<td>CEL MAIN - 3rd Floor/F367</td>
<td>3-C3IU</td>
<td>F367</td>
<td>Bed Assigned</td>
<td>RM 358, TR 1645, RN 4717</td>
</tr>
<tr>
<td></td>
<td>In Room</td>
<td></td>
<td>CEL MAIN - 3rd Floor/F367</td>
<td>3-C3IU</td>
<td>F367</td>
<td>Bed Assigned</td>
<td>RM 367, TR 1055, RN 4722</td>
</tr>
<tr>
<td></td>
<td>Recovery - 60 Mins</td>
<td></td>
<td>CEL MAIN - 3rd Floor/PACU</td>
<td>3-Surgery</td>
<td></td>
<td></td>
<td>362 TR 4724</td>
</tr>
<tr>
<td></td>
<td>Out of Room</td>
<td></td>
<td>CEL MAIN - 3rd Floor/Nurse_Sta_A_Soiled</td>
<td>3-C3IU</td>
<td></td>
<td></td>
<td>RM 341, TR 0925, RN 4717</td>
</tr>
<tr>
<td></td>
<td>In Room</td>
<td></td>
<td>CEL MAIN - 3rd Floor/F341</td>
<td>3-C3IU</td>
<td>F341</td>
<td>Bed Assigned</td>
<td>RM 345, TR 0957, RN 4717</td>
</tr>
<tr>
<td></td>
<td>On Unit - Post Op</td>
<td></td>
<td>CEL MAIN - 3rd Floor/F345</td>
<td>3-C3IU</td>
<td>F345</td>
<td>Bed Assigned</td>
<td></td>
</tr>
</tbody>
</table>
Unit Map View

Takeaway:
Room Availability, Patient Ambulation, Nurse Contact and More
**OR Daily Drone Dashboard**

### Recovery Units

<table>
<thead>
<tr>
<th>% all Recovery Pts buttons pushed</th>
<th>% Endo pts. patients buttons pushed</th>
<th>% PACU patients buttons pushed</th>
<th>Recovery Pts who went home</th>
<th>Goal 1 Met. (All Recovery Pts.)</th>
<th>Goal 1 met (Non Endo Pts only)</th>
<th>Goal 1 met - (Endo only)</th>
<th>Opportunity! % pts. &lt; 10 min. over GOAL 1 target</th>
<th>#Pts who went home &amp; did not meet Goal 1 target</th>
<th>GOAL 2 met All Recovery pts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>78%</td>
<td>n/a</td>
<td>78%</td>
<td>47%</td>
<td>28%</td>
<td>22%</td>
<td>n/a</td>
<td>22%</td>
<td>11</td>
<td>36%</td>
</tr>
</tbody>
</table>

*Goal 1 met criteria <= 60min from enter PACU
**Goal 2 PACU Hold time <= 30min

### OR

<table>
<thead>
<tr>
<th>Suite</th>
<th>Closing PB</th>
<th>Total Pts</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR 1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>OR 2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>OR 3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>OR 4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>OR 5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>OR 6</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>OR 7</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>OR 8</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>OR 9</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OR 10</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>OR 11</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th># 1st Cases</th>
<th># 1st On Time Cases</th>
<th>Compliance %</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/7/2015</td>
<td>6</td>
<td>5</td>
<td>83%</td>
</tr>
<tr>
<td>7/8/2015</td>
<td>9</td>
<td>5</td>
<td>56%</td>
</tr>
</tbody>
</table>

### Takeaway:

Compliance and Process (1st), Accurate Data (2nd)
OR Phase of Care Analytics Design 1

Number of Visits: 719
Average Cycle Time in Minutes: 388.44

Average Time in Minutes by Phase of Care:
- Pre-Cp: 101.62
- OR: 83.39
- OR Waiting: 59.67
- Blocked - Unknown: 35.33
- Recovery - 60 Mins: 18.49
- Blocked - Ready to Op: 17.71

Average Time by Phase of Care by Day of Week:

<table>
<thead>
<tr>
<th>Day</th>
<th>Pre-Cp</th>
<th>OR</th>
<th>OR Waiting</th>
<th>Blocked - Unknown</th>
<th>Recovery - 60 Mins</th>
<th>Blocked - Ready to Op</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>16.69</td>
<td>71.94</td>
<td>46.44</td>
<td>100.34</td>
<td>10.70</td>
<td>18.49</td>
</tr>
<tr>
<td>Tuesday</td>
<td>29.15</td>
<td>96.63</td>
<td>49.47</td>
<td>108.00</td>
<td>20.10</td>
<td>19.39</td>
</tr>
<tr>
<td>Wednesday</td>
<td>38.96</td>
<td>69.20</td>
<td>66.66</td>
<td>94.16</td>
<td>34.16</td>
<td>18.78</td>
</tr>
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<td>52.64</td>
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<td>52.05</td>
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<td>Friday</td>
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<td>74.16</td>
<td>42.60</td>
<td>95.01</td>
<td>36.52</td>
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Average Duration by Date:

<table>
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<th>Date</th>
<th>Average Duration</th>
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<tbody>
<tr>
<td>Feb 25</td>
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<tr>
<td>Feb 26</td>
<td>349.33</td>
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<td>Mar 1</td>
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<td>Mar 2</td>
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<td>Mar 3</td>
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<td>Mar 4</td>
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<td>Mar 8</td>
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<td>Mar 13</td>
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<tr>
<td>Mar 14</td>
<td>459.78</td>
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Cycle Time

Exclude Weekends: Yes
Shift Date: Last 3 months
Shift: Working Hours
Map: (all)
Unit: (all)
Room Type: (all)
Room: (all)
Phase of Care: (all)
OR Phase of Care Analytics Final Design

Summary

Number of Visits: 361
Median Cycle Time: 387.50 Minutes

Median Time by Phase of Care

Cycle Time

Total & (Median) Time by Phase of Care by Day of Week

Volume/Median Time by Date for Visit
OR Patient Visit Analytics

Patient Visit Details

Please Click a patient’s name or shift date in the following table, or input a patient’s name or ID in Search to get the visits details

<table>
<thead>
<tr>
<th>Patient</th>
<th>ID</th>
<th>Shift Date</th>
<th>Surgeon</th>
<th>Avg Cycle Time Per Visit in Minutes</th>
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<td></td>
<td>24263960</td>
<td>3/17/2015</td>
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<td>24307884</td>
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</table>

Patient Stay Timeline
Benefits Realized for the Value of Health IT

- **24 mins**: A reduction of 10-24 minutes in the total time in recovery for patients in the OR (May 2015 vs. May 2014).

- **20%**: Total recovery times are significantly more predictable, on average 20% less variation.

- **16 mins**: A reduction of 6-16 minutes in hold times in the PACU between when a patient meets release criteria to when they are moved to an acute care unit.

- **75%**: 75% reduction in calls or person-to-person communication between staff in the acute care unit to confirm basic information, which is now displayed through dashboards.
Ambulatory Surgery Patient Experience Results Percentile Levels for Mean Scores

Florida Hospital Celebration Health

Qtr 2 2015
Qtr 2 2014

Likelihood to Recommend

Overall Rating of Care

Information About Delays

Degree Pain Controlled

Response to Concerns/Complaints

Concern for Privacy

Registration (multi-question)

Facility (multi-question)

Nurses (multi-question)

Doctor (multi-question)

Created by FH Patient Experience Department
By Survey Return / Received Date
Sample Size: Qtr 2 2015 n=90, Qtr 2 2014 n=106
OR Implementation Learnings

• Appropriate configuration and tuning of equipment is paramount

• Exciter and tags should be used for tuning

• Exciters should be installed in the middle of the ORs, not at the entrances

• Real patient movement can’t be completely replicated. Extensive pre-go-live system validation is critical, but expect some fixes when tags are worn by real patients

• Numbering Patient-Flow event names based on “normal” flow helps tremendously, as well as adding accurate descriptions
OR Implementation Learnings Cont.

• Ensure adequate system resources in the OR environment, otherwise you may encounter performance issues.

• Validate the supporting networking infrastructure and Wi-Fi coverage is at or above vendors recommendations, otherwise the accuracy of the data may be inconsistent. *This is especially important for Patient Flow!*

• Periodic analysis and feedback of the data is extremely important in validating system performance and data accuracy.
Where We Look to Go...

Value Based Purchasing & Pay for Performance

**Capacity and Throughput**
- Patient Flow – ER Patient and Staff Flow Monitoring (Q1 2017)
- Expansion to more nursing units (Q3 2016)
- Capacity Management – EMR Integration (2016)

**Staff Workflow**
- Integration of EMR and Bed management data (Late 2016)

**Business Intelligence**
- Real-Time decision making capabilities (in process)
- Predictive modeling (in process)
- Real-Time visual analytics

**Patient Experience**
- Continued IPC Integrations
Key Learnings 😊

• **Adoption/Culture**: requires rigorous and **continuous plan** to sustain engagement in the process. I.e. onboarding process, communication methods, can’t let up!

• **Surprises**: Nurses actually like it and will leverage it, surprising finds in the data that drive new questions and information, patients love it!

• **Resource Requirements**

• **Organizational and IT Support**
Poll Question # 3

What would you have liked to hear more about?

• IT specs requirements
• Implementation best practices
• More ROI information
• More clinical best practices/lessons learned
Questions?

Ashley Simmons
Director of Innovation Development

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