Staffing to Demand to Improve On-Time Starts, Case Length, and Turnover Times

OR Business Manager Conference
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SVP Clinical Operations
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Learning Objectives

Define a process to determine the appropriate number of rooms to run per day based on historical inpatient and outpatient case volume.

Organize a team consisting of surgeons, anesthesiologists, and senior leadership to redesign the OR’s block and open room scheduling to meet the needs of clinicians and the organization.

Create a staffing plan that matches clinical, material, and equipment resources to support the demand while increasing efficiency and reducing overall costs.
Introduction

Staffing to demand is the leading indicator of high performing and successful perioperative leaders and departments that drives improvement in first case on-time starts, case length, and reduced turnover times.

Staffing to demand increases bottom line revenue for the facility through increased volume and throughput and elimination of waste.

Traditionally staffing methodology was owned solely by nursing.

But staffing models must be matched to OR utilization and the OR Business Manager holds the key to unlocking the data necessary to define these models. Further, the OR Business Manager must have the analytical competency to guide nursing on how effectively to staff to the demand.
Why Focus on Perioperative Services?

Perioperative services drive hospitals’ performance.

- Over 68% of better performing hospitals’ revenue
- 60% of margin is derived from better performing perioperative services.
- Successful system under Value-Based Purchasing/ACO provides both surgeons and payors more value for surgical services. 

Equation: **Outcome/Cost**

By helping our clients tackle the complexities and minimize the political and cultural barriers, our clients have experienced significant improvements in surgeon, staff, and patient satisfaction, which has resulted in improved access to the OR, sustainable growth in surgical volume, and increased market share.
Conflicting Perspectives

- **Surgeon**
  - I want a room when I want it. I don’t care what it costs; I need it!

- **Anesthesia**
  - I want the rooms full between 7AM and 5PM and then only emergencies

- **Nursing**
  - I want the rooms full between 7AM and 3PM, but closed from 1130 to Noon; ‘The more efficient I am the more work I have to do so what is my incentive!’

- **Administration**
  - I want the rooms running 24 hours a day with well paying patients while utilizing staff on straight time
Role of the Business Manager

- Know how to communicate business terms in a simplistic, consistent, and organized manner
- Apply data-driven decision making
- Manage the P&L
- Manage the vendor relations
- Manage the physician interactions in terms of block time, vendor management, and market/physician demand

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2014</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents who have a business manager</td>
<td>37%</td>
<td>33%</td>
<td>- 4%</td>
</tr>
<tr>
<td>Average salary</td>
<td>$76,000</td>
<td>$96,000</td>
<td>$20,000</td>
</tr>
<tr>
<td>Clinical background required</td>
<td>78%</td>
<td>28%</td>
<td>- 50%</td>
</tr>
<tr>
<td>4+ direct reports</td>
<td>51%</td>
<td>49%</td>
<td>- 2%</td>
</tr>
<tr>
<td>Teaching hospitals with business managers</td>
<td>54%</td>
<td>65%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Source: OR Manager October 2014
About one-third (34%) of surgical services departments have a business manager, according to the 2010 OR Manager Salary/Career Survey. The position is more common in teaching hospitals (52%) than in community hospitals (30%). The majority (58%) of departments with 10 or more ORs have an OR business manager. The complete survey results for OR business managers are in the November 2010 OR Manager.

The top 5 responsibilities for OR business managers, according to the survey are:

- Financial analysis/reporting
- Value analysis/product selection process
- Annual budget
- Billing/reimbursement
- Materials management

Source: OR Manager September 2010, OR Manager October 2014
Establish block and open scheduling rules through appropriate governance.

- If you do not have an appropriate governance structure, seek assistance in establishing this foundation. Usually takes outside assistance to change culture and transformational leadership. If you do have the appropriate structure in place, assure that the appropriate metrics and transparency is in place and that the rules are enforced.

- Determine the appropriate number of rooms to run based upon historical volume and scheduling patterns which meet the performance needs of the hospital and assures appropriate access to the surgical schedule for surgeons (cost and revenue = contribution margin that meets organizational targets).

- Redesign the block schedule that meets the needs of the surgeons access to the hospital and provides ample open time and add on time with also consideration to the appropriate cost and revenue stream that meets the hospitals operational needs.
Create a Perioperative governing body to align incentives. An Operations Committee for all aspects of Perioperative Services

**Surgical Services Executive Committee (SSEC)**

- Chaired by Medical Director(s) of Perioperative Services
- Administration-sponsored Surgery Board of Directors
- Controls access and operations of OR
- Sponsors and directs Perioperative team activity
SSEC Initiatives

Initial focus of SSEC should be on improving access to the OR by revising block schedule and guidelines

Establish mechanisms to effectively monitor and track performance
- Generate monthly reports illustrating key indicators of OR performance; reports should be shared with OR staff on a consistent basis
- Have a dedicated and knowledgeable OR resource responsible for gathering data related to surgical services

Develop a daily "huddle" that includes Co-Medical Directors, Director of Surgical Services, Scheduling, PAT, and coordinators to start proactively managing operations
- Focus on optimizing surgeon access
- Use "huddle" and new block schedule to reduce gaps and improve OR utilization
- Focus on improving relations/cooperation between anesthesia and nursing
## Typical Opportunities for Improvement

<table>
<thead>
<tr>
<th>Metric</th>
<th>Benchmark</th>
<th>Hospital</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Block Schedule</strong></td>
<td>8 hr blocks plus open time; 75% utilization</td>
<td>4.5, 5, 8, 10+ hour blocks *50% block utilization w/ TOT</td>
<td></td>
</tr>
<tr>
<td><strong>Cases per OR Main OR</strong></td>
<td>IP 950 cases OP 1,400 cases Total: 1,319 cases per OR ASC volume benchmark = 1,400 per OR</td>
<td>IP: 175 cases OP: 789 cases Total: 964 cases per OR ASC per OR: 964 per OR</td>
<td></td>
</tr>
<tr>
<td><strong>Day of Surgery Cancellations</strong></td>
<td>&lt;1%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td><strong>Turnover Time</strong></td>
<td>IP: 20-30 minutes OP: 10-20 minutes</td>
<td>IP: 45 minutes OP: 37 minutes</td>
<td></td>
</tr>
<tr>
<td><strong>First Case On-Time Starts</strong></td>
<td>90% or greater within 5-7 minutes of start time</td>
<td>~63%</td>
<td></td>
</tr>
<tr>
<td><strong>Pre-Admission Testing</strong></td>
<td>Evaluating&gt;90% of patients prior to surgery Formal Medical director/ Current protocols</td>
<td>No formalized Anesthesia Medical Directorship Lack of communication and review of PAT findings before the day of surgery</td>
<td></td>
</tr>
</tbody>
</table>
Volume Analysis Current Capacity Greatly Exceeds Demand

Yet surgeons have difficulty accessing the schedule...

**Hospital Volume**

- 2013: Current 11,564
- 2014 Annualized: Current 11,740

**ASC Volume**

- 2013: Current Volume 6,366
- Annualized 2014: Current Volume 6,006
Operating Room Resources Are Not Fully Utilized After 10 am
1. Develop a Surgical Services Executive Committee (SSEC)
2. Determine the number of rooms that you should currently be running based upon volume and block utilization
3. Analyze Block utilization per surgeon or group and determine the threshold to maintain block
4. Define block scheduling rules
5. Set date for surgeon sign-up
6. Set date for roll-out of new block
7. Develop a monthly Surgeon Score-card
8. Monitor quarterly utilization metrics with block revisions every 6 months
### "Ideal" Block Schedule Example

![Block Schedule Table]

#### Monday

<table>
<thead>
<tr>
<th>Time</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>6</th>
<th>7</th>
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</tr>
</tbody>
</table>

- **Boes**: 45.17%
- **Avery**: 45.17%
- **Hamacher**: 52.45%
- **Smith**: 45.17%
- **OPEN**
- **Bell**: 62.46%
- **Micahels**: 79.00%
- **OPEN**
- **Tims**: 45.17%
- **Joe**: 45.17%

**20% Open Time**
Room availability needs to be enhanced between 17:30-19:30

**Rooms Running in Main OR (Weekday)**

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Number of Rooms Running</th>
</tr>
</thead>
<tbody>
<tr>
<td>0700-1530</td>
<td>15</td>
</tr>
<tr>
<td>1530-1730</td>
<td>15</td>
</tr>
<tr>
<td>1730-1930</td>
<td>8</td>
</tr>
<tr>
<td>1930-2300</td>
<td>3</td>
</tr>
</tbody>
</table>
Physician Scorecard

Overall Utilization
59.62% 29 $1,701.95

Turnover
Month | Minutes | # of Turnovers | Case Count
Jan-18 | 77 | 1 | 43
Feb-18 | 36 | 9 | 38
Mar-18 | 21 | 8 | 45

On-Time Starts
Month | Cases | On-Time | Percentage | Delay Reason
Jan-18 | 3 | 3 | 100% | Surgeon Delay
Feb-18 | 6 | 3 | 60% | Surgeon Delay
Mar-18 | 3 | 3 | 100% | Surgeon Delay

Day of Surgery Cancellations
Month | Cases | Reason for Cancellation
Jan-18 | 0 | Refraining surgery
Feb-18 | 3 | Cannot find a ride
Mar-18 | 1 | Looking at other avenues for care

Procedure Counts
Primary Procedure | Jan-18 | Feb-18 | Mar-18 | YTD | Total Count
Lap Chole | 3 | 7 | 2 | 12 | 55
Lap Appy | 0 | 7 | 0 | 7 | 31
Breast Biopsy | 1 | 2 | 1 | 4 | 26
Radical Mastectomy | 1 | 0 | 1 | 2 | 10
Inguinal Hernia | 2 | 2 | 0 | 4 | 17

Block Utilization
Quarter | Time Given | Time Used | Indicator
1 | 1440 | 6790 | 51.62%
2 | 1327 | 7222 | 54.21%
3 | 1200 | 1028 | 53.89%
4 | 9697 | 5400 | 47.02%

Cost Per Case
Procedure | Cost Per Case | Peer Cost Per Case | Difference
Total Knee | $6,700.00 | $3,650.00 | $3,200.00
Total Hip | $7,500.00 | $5,500.00 | $1,500.00

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### Case Time Data Driving Organizational Change

#### OR Case Time Variance by Procedure

<table>
<thead>
<tr>
<th>Focus Procedure</th>
<th>Period</th>
<th>Count of CSN</th>
<th>Total Time</th>
<th>Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lumbar Lamnecomy W Fusion</td>
<td>CY12 (JAN-OCT)</td>
<td>27</td>
<td>24</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>CY13 (JAN-JUN)</td>
<td>20</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>Replacement Hip Total</td>
<td>CY12 (JAN-OCT)</td>
<td>817</td>
<td>25</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>CY13 (JAN-JUN)</td>
<td>549</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>Replacement Knee Total</td>
<td>CY12 (JAN-OCT)</td>
<td>758</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>CY13 (JAN-JUN)</td>
<td>482</td>
<td>26</td>
<td>31</td>
</tr>
<tr>
<td>ACL Reconstruction</td>
<td>CY12 (JAN-OCT)</td>
<td>134</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>CY13 (JAN-JUN)</td>
<td>82</td>
<td>16</td>
<td>21</td>
</tr>
<tr>
<td>ACL Reconstruction w Meniscal Rep</td>
<td>CY12 (JAN-OCT)</td>
<td>34</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>CY13 (JAN-JUN)</td>
<td>15</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Repair Rotator Cuff</td>
<td>CY12 (JAN-OCT)</td>
<td>216</td>
<td>22</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>CY13 (JAN-JUN)</td>
<td>153</td>
<td>19</td>
<td>13</td>
</tr>
</tbody>
</table>

**NOTES:**
- PROCEDURE sorted in descending order by average of TOTAL CASE TIME.
- Average of MINUTES for each PROCEDURE broken down by PERIOD.
- Color shows details about INTERVAL. The marks are labeled by average of MINUTES.
- The data exclude cases that have been canceled, terminated in OR, or have timestamp errors.

- Patient In
- Anesthesia ready
- Cut
- Close
- Patient out
Cost Transparency

Total Hip Replacement - Total Costs by Department

- Medicare Reimbursement

$11,136

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Cost Transparency

Supply Cost Detail Dashboard
Procedure: Total Knee Replacement - YTD 2012

Total Knee Replacement - Total Costs by Department

*Updated: 12/4/2012

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Strategic Growth

Market Share & Perioperative Growth Strategy Analysis

Avg. Market Share: 25%

Avg. Contribution Margin: $7,472.89

Contribution Margin

$35,000.00
$30,000.00
$25,000.00
$20,000.00
$15,000.00
$10,000.00
$5,000.00
$0
$(-5,000.00)

% 0% 10% 20% 30% 40% 50% 60% 70% 80% 90%

CV
Dental
ENT
General
GYN
Neurosurgery
Orthopedics
Urology
Where to start whether you are the Director or Business Manager:

- Establish elective, urgent, an emergent definitions with a consistent retrospective case review process.
- Decide upon primetime utilization, the drawdown outside of primetime, and weekend scheduling rules/definitions.
- Agree upon the number of rooms running per day of week and time of day to determine the necessary staffing to match to the block.
- Establish block utilization standards for maintenance of blocks and on-going, quarterly monitoring and readjustment.
Where to start whether you are the Director or Business Manager:

Step Two

Align Nursing and Anesthesia Staffing, as well as facility support services (i.e., Lab and Pathology, Radiology, Admitting, Registration, Case Management etc., to support and execute the block redesign.

Utilize an appropriate staffing and productivity tool that determines the number of staff needed per day, per time of day, and that assures that first case on time starts, case length, and turnover times are improved.

Assure that the appropriate support staff are in place to achieve goals –
• Service line Coordinators
• ORA’s
• Anesthesia Techs
• EVS
• Materials support
• Inner core support
Competing Priorities – A Balancing Act

• Providing high quality patient care
• Providing convenient access for surgeon (revenue generation)
• Providing healthy work environments for staff (work-life balance)
• Functioning at or below budget

• Additional factors to consider:
  – market recruitment opportunities
  – lead cycles for on-boarding
Common Productivity Metrics for OR’s

- “History”
- Hours per Patient Day
- RVU’s
- Man hours per Stat
  - Surgical minutes
  - Surgical cases

- Do these methodologies provide you with a methodology to defend your staffing needs, especially in the era of healthcare reform?
### Operating Room Staffing Plan

#### Step 1: Total Hours Staffed per Week

<table>
<thead>
<tr>
<th>Schedule</th>
<th># Rooms Open</th>
<th>Hour Open</th>
<th>Hour Close</th>
<th>Hours Open</th>
<th>Hours Open/Day</th>
<th>Days/Week</th>
<th>Total Hours Staffed/Week</th>
<th>Notes</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mon-Fri</td>
<td>8:00 AM</td>
<td>7:00 PM</td>
<td>7:00 PM</td>
<td>5</td>
<td>45</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Mon-Fri</td>
<td>3:00 PM</td>
<td>7:00 PM</td>
<td>7:00 PM</td>
<td>4</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Mon-Fri</td>
<td>1:00 PM</td>
<td>7:00 PM</td>
<td>11:00 PM</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Sat-Sun</td>
<td>0:00 AM</td>
<td>0:00 AM</td>
<td>0:00 AM</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td></td>
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<tr>
<td>Total</td>
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<td>14</td>
<td></td>
<td>44</td>
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<td>320</td>
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</table>

#### Step 2: Total Hours Staffed per Week x the number of FTEs per room x working hrs per week = FTEs

<table>
<thead>
<tr>
<th>Total Hours Staffed/Week</th>
<th>FTEs/Room</th>
<th>Working Hrs/Year</th>
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<tbody>
<tr>
<td>320</td>
<td>1.2</td>
<td>21,600</td>
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#### Non-Productive Time

<table>
<thead>
<tr>
<th>Non-Productive Hours/Year</th>
<th>Annotations Retired FTEs Driver for Retired FTEs</th>
<th>Driver for Retired FTEs</th>
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<tbody>
<tr>
<td>2.5%</td>
<td>Lunch and break coverage</td>
<td>Total: 8,120.00</td>
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#### Second Data Table

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<tr>
<th>Position</th>
<th>Required FTEs</th>
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<td>Director</td>
<td>1</td>
</tr>
<tr>
<td>Business Manager</td>
<td>1</td>
</tr>
<tr>
<td>OR Team Leader</td>
<td>1</td>
</tr>
<tr>
<td>Team Leader</td>
<td>2</td>
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<tr>
<td>Nurse Educator</td>
<td>1</td>
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<tr>
<td>Data Entry Clerk</td>
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<tr>
<td>Anesthesia PA</td>
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<td>Operating Room Assistant</td>
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<tr>
<td>Total</td>
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<table>
<thead>
<tr>
<th>Position</th>
<th>Required FTEs</th>
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<td>Current # FTEs</td>
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</tr>
<tr>
<td>Current FTEs X AD</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
</tr>
<tr>
<td>Variance</td>
<td>10</td>
</tr>
</tbody>
</table>
Inputs

- Number of rooms running per day of week and the time of day
- The number of FTE’s/Room
  - 2.5 (AORN)
  - Can range from 2.0 to 3.0 depending upon the facility (note: 3.0 is only recommended in complex cases, i.e., CV, Neuro, and some Ortho and Robotic procedures)
- Average amount of vacation, lunch, and break time per FTE
- RN/ST Ratio (70%/30% – AORN)
- Number of not direct care staff (management and support staff – AORN recommends 1 indirect for every 2 direct care givers or 33%)

<table>
<thead>
<tr>
<th>Department</th>
<th>Average % Indirect Labor</th>
<th>Average % Education</th>
<th>Average % Orientation</th>
<th>Total % of Indirect to T. Worked Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perioperative Services</td>
<td>17%</td>
<td>1.5 - 2.0%</td>
<td>1.5 – 2.0%</td>
<td>20% - 21%</td>
</tr>
</tbody>
</table>
FTE’s (Full Time Equivalents)

• **1 FTE**: 40 hrs./week x 52 weeks = 2080 Total paid hours/year
  – Important Note: Some facilities consider 37.5 hrs./week x 52 weeks = 1,950 Total paid hours/year

• Based upon a 5 day workweek: 0.2 FTE’s per day
  – 6 Days/week = 1.2 FTE’s
  – 7 Days/week = 1.4 FTE’s

• **7 Day per week Operational Rule**:  
  – In a 7 day schedule, every 1 FTE needs an additional 0.4 FTE to staff days off  
  – For example – 10 RN FTE’s every day x 1.4 = 14 FTE’s
Demonstration of Tool #1

Staffing to demand demonstration
Surgical Directions

How to Translate FTE’s Into an Effective Staff Schedule

• While FTE’s are very important and is an essential part of the budgeting and staffing formula, measuring productivity, and room utilization per time of day is essential to effectively staff the OR

• We can determine the number of FTE’s per operating room, but how do we know:
  – How many 8 hour shifts will work?
  – How many 10 hour shifts we need?
  – Will 12 hour shifts work in my OR?
  – How many shifts do we need in an OR?
  – When should the first shift arrive and the last shift end?
  – How many rooms are running?
  – Most important, how do I justify and defend these positions and requests to administration?

• This is why current methodologies have not met the needs of OR Business Managers and Perioperative Leadership
A productivity based staffing tool that can predict and identify both number of FTE’s, define skill mix, and defend FTE consumption is what has been missing in current perioperative staffing model’s.

A tool that can provide these metrics, requires extensive data access and retrieval, along with analytical review.

This requires high level analytical capabilities from OR Business Managers.
Performance Optimization - Example

Review OR productivity through data analytics

PRODUCTIVITY TOOL - BUDGET SHEET

Instructions:
**Populate fields in green**
Enter department number
Enter staff title in each department
Enter budgeted number of staff for each job title
Enter volume/encounters for each department

Standardize job title (dir, mana, etc.)
0.13 or 0.14 for higher acuity procedures (hearts, neuro, robot)
Endo 3.14 (depts that pre/post) 1.5 to 2.0 for just procedures
RN:Tech Ratio 60:40 (enter formula for future state)
Do modeling with staffing if we close rooms - how many staff would we need
CALCULATE ROOM NEEDED BASED ON ROOMS

Perioperative Service Area:

<table>
<thead>
<tr>
<th>Endo</th>
<th>PAT</th>
<th>Pre-Op</th>
<th>Operating Room</th>
<th>PACU</th>
<th>SPD</th>
<th>SDS</th>
<th>SCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.51</td>
<td>9.32</td>
<td>9.32</td>
<td>0.00</td>
<td>9.32</td>
<td>9.32</td>
<td>9.32</td>
<td>9.32</td>
</tr>
</tbody>
</table>

Operating Room

<table>
<thead>
<tr>
<th>Case Volume:</th>
<th>Case Minutes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1,000,000</td>
</tr>
</tbody>
</table>

Total # of Rooms Needed: 3
Late Start Total # of Rooms Needed: 1
How do I ease the relationship?

**Predicted Variable(s)**
- Patient PAT
- Available equipment supplies
- On Time surgeon arrival
- Release of block time
- Staff accountability

**Unpredicted Variable(s)**
- Add ons
- Emergencies
- Patient related activity
- Equipment breakdown/malfunction

**Solution:** An Intuitive Labor & Productivity Tool
Labor & Productivity Tool 2.0

Solution: An Intuitive Labor & Productivity Tool

Brilliant!

<table>
<thead>
<tr>
<th>Dept Name</th>
<th>Actual Worked Hours</th>
<th>Actual Worked FTEs</th>
<th>Budgeted FTEs</th>
<th>Actual/Budget Variance</th>
<th>Pred Hours</th>
<th>Pred FTEs</th>
<th>Hours per Stat</th>
<th>Increase/Decrease on Actual vs. Prod</th>
<th>Variance</th>
<th>Variance</th>
<th>FTE's</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endoscopy</td>
<td>42,000</td>
<td>20.2</td>
<td>10.77</td>
<td>9.42</td>
<td>34,111</td>
<td>16.40</td>
<td>3.24</td>
<td>Visits or Procedures</td>
<td>5.63</td>
<td>(3.79)</td>
<td>18.30</td>
</tr>
<tr>
<td>PACU</td>
<td>33,000</td>
<td>15.9</td>
<td>15.22</td>
<td>0.65</td>
<td>28,636</td>
<td>13.77</td>
<td>2.02</td>
<td>Visits</td>
<td>(1.45)</td>
<td>(2.10)</td>
<td>14.82</td>
</tr>
<tr>
<td>Central Sterile Supply &amp; Supply Processing</td>
<td>28,563</td>
<td>13.7</td>
<td>27.91</td>
<td>-14.18</td>
<td>25,368</td>
<td>12.20</td>
<td>0.50</td>
<td>OR Cases, L&amp;D, Factors</td>
<td>(15.71)</td>
<td>(1.54)</td>
<td>12.96</td>
</tr>
<tr>
<td>Operating Rooms MDR</td>
<td>146,004</td>
<td>70.2</td>
<td>45.68</td>
<td>24.51</td>
<td>134,863</td>
<td>64.84</td>
<td>0.13</td>
<td>OR Case Hours + TAT</td>
<td>19.16</td>
<td>(5.36)</td>
<td>67.52</td>
</tr>
<tr>
<td>Ambulatory Surgery Department</td>
<td>36,000</td>
<td>17.3</td>
<td>19.00</td>
<td>-1.69</td>
<td>28,000</td>
<td>13.46</td>
<td>3.34</td>
<td>Visits</td>
<td>(5.54)</td>
<td>(3.85)</td>
<td>15.30</td>
</tr>
</tbody>
</table>
On the horizon is the capability to develop predictive modeling tools that can tell us day by day, how many staff are needed to effectively run a productive perioperative service.

Vanderbilt already has in place such tools for determining the number of rooms to run by day of week.

Until technology catches up in health care, and in particular in perioperative services, what can we do today with the tools that we currently have available?
Establish dashboards with thresholds to monitor and display results in a consistent methodology and report to the governance entity monthly, quarterly, and annually.

- Evaluate the plan and results no less than quarterly
- Publish transparent information to surgeons, nursing, and anesthesia
AORN Position Statement on Perioperative Safe Staffing and On-Call Practices
Displaying Data

• Implement LDM boards and metrics to monitor daily performance that includes staffing metrics.
  – Provide pictures and examples with Sr. Leadership involvement

• Consider salaried staffing models and alternate shifts to meet the needs of the surgeons accessing the department;
  – Salary
  – 10 hour shifts
  – Weekend staffing
  – Off shifts, i.e., 9 – 5, 10 – 7, short shifts on weekends, etc.

• Prove through results from data collection that on-time starts, case length, and turnover times improve by surgeon

• Collect data on late starts and post by surgeon and by reason
**Data Management**

**LDM (Lean Daily Management) Board**

- Determine 2-4 areas of focused process improvement activity
- Develop multi-disciplinary performance improvement teams
- Publish data daily and review each morning
- Performance must be audited daily
- Once performance objectives are consistently maintained, remove and add an additional metric
Staff Buy-In

Identify incentives for high performance/productivity:

- First lunch
- Vacation priority
- Bonuses
- First choice for work schedules/shifts
- Other means of recognition, reward, etc.
Celebrate successes to hard-wire transformation and cultural change and monitor performance:

• **Examples:**
  – Surgeon sponsored breakfasts/lunches
  – Anesthesia sponsored breakfasts/lunches
  – Hospital sponsored breakfasts/lunches

• **Productivity and staffing tool should be automated to make adjustments as situations change**
  – Highlight the elements of our tool
  – Provide bottom line labor and non-labor cost savings
  – Provide talking points to sell this methodology to Sr. Leadership
For questions or comments, please contact:

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www.SurgicalDirections.com
References


7. Surgical Directions Proprietary Data Base