How to Engage Physicians in Quality/Safety Improvement Using Metrics

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How to Engage Physicians in Quality/Safety Improvement Using Metrics

Will discuss:

• How to build a quality infrastructure for your orthopedic program
• What quality metrics to measure and how to engage surgeons using them
• Lean and Six Sigma principles to use to accelerate improvement
OVERVIEW

The unsustainable rising cost of medical care is creating financial pressures that will critically alter the way that health care is both paid for and delivered. Limited resources dictate that we become more efficient at providing high quality care. In an effort to provide financial incentive for delivering quality care the Federal government instituted Value Based Purchasing (VBP) and Bundled Payments. In order to maximize reimbursement under these programs, providers of health care must follow to the basic tenants of the quality principles.
VALUE BASED PURCHASING

• Under the Hospital VBP Program hospitals receive payment bonuses or reductions based on performance measures.
• The program is budget neutral. Bonuses for high performing hospitals are funded by payment cuts from low performing facilities.
• FY2016: the at risk amount under the program is 1.7% of the base operating DRG payment. Increases to 2% in FY2017.
• When the Hospital VBP Program began clinical process measures were weighted heavily in the total performance score.
• Over the last 3 years process measures have gradually been supplanted by outcome (mortality rates) and efficiency measures (spending per beneficiary).
• Reimbursement under the program depends on patient experience as measure by the HCAHPS survey.
VALUE BASED PURCHASING CONTINUED

- In FY2017 the program will add a safety domain.
- The safety domain will represent 20% of a hospital’s total performance score.
- Safety measures include: MRSA infection rate, C diff. infection rate
- FY2019 complication rates following elective primary total hip and total knee arthroplasties will be included.

**Hospital VBP Program: Update to Domain Weights**

<table>
<thead>
<tr>
<th>Year</th>
<th>Clinical Process</th>
<th>Patient Experience</th>
<th>Safety</th>
<th>Clinical Outcome</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>70%</td>
<td>30%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>45%</td>
<td>30%</td>
<td>25%</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>20%</td>
<td>30%</td>
<td>30%</td>
<td>30%</td>
<td>20%</td>
</tr>
<tr>
<td>2016</td>
<td>10%</td>
<td>25%</td>
<td>40%</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>2017 (NEW)</td>
<td>5%</td>
<td>25%</td>
<td>20%</td>
<td>25%</td>
<td>25%</td>
</tr>
</tbody>
</table>
VALUE BASED PURCHASING CONTINUED

• Approximately 3,400 hospitals were included in at least one of the 3 CMS pay for performance programs in FY2015.
• Only 14% of these hospitals received no penalties
• 44% received 2 or more penalties
• 1,202 were penalized for excess readmissions
Hospitals Receiving Final FY 2015 Penalties

Based on final readmissions, VBP adjustment factors, and final HAC penalties released following FY 2015 IPPS final rule.
VALUE BASED CARE: NYU HOSPITAL FOR JOINT DISEASES EXPERIENCE

- Our research efforts and clinical initiatives focus on increasing the value of healthcare by:
  - Controlling costs
  - Minimizing complications
  - Eliminating disparities

- Several of our recent studies have examined the rates and causes of patient readmission following orthopaedic surgery.

- These studies are helping us to develop targeted interventions to reduce rehospitalization rates and improve performance under the government’s readmission reduction program.
VALUE BASED CARE: NYU HOSPITAL FOR JOINT DISEASES EXPERIENCE

• Overall our research initiatives are improving our understanding of:
  • How to maximize safety
  • Minimize complications
  • Control the cost of care through consistent use of evidence-based medicine and clinical practice guidelines

• This overall effort is providing the industry with valuable guidance on optimizing performance under value based payment.
DOMAINS OF CARE

- The clinical process of care domain encompasses 12 performance targets in the care of acute myocardial infarction, heart failure, pneumonia, healthcare associated infections and surgical care.

- The patient experience of care domain is measured by the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) score.
  - A subjective measure of patients’ opinions regarding care they received

- 3rd domain measures mortality outcomes and iatrogenic complications

- CMS then determines the hospital’s total performance score for achievement and improvement levels and will calculate appropriate incentive payments based upon these measures.
DOMAINS OF CARE CONTINUED

• Using performance data from July 2009 through March 2010 CMS established minimum achievement and benchmark thresholds for each measure of clinical care.

• Thresholds are calculated using the 50\textsuperscript{th} and 90\textsuperscript{th} percentiles of compliance in each domain.

• Scores for each measure are determined based upon where a hospital falls within the achievement range.

• The total performance score is calculated with clinical process of care measures 70\% and patient experience measures determining the remaining 30\%. Incentive payments are then made using a linear scale with budget neutrality determining the allocation of funds.
Domains of Care Continued

- Quality can be measured via internal metrics evaluating the elimination of errors (clinical process domain) or via external metrics evaluating patient satisfaction (patient experience domain).
  - The principles of value based purchasing ensure that both sets of metrics will play a role in determining the quality of care a hospital provides.

- Improving clinical process domains must be guided by eliminating errors from the process of care delivery.

- This method of quality improvement can be approached using techniques to improve operating efficiency, reduce variation, avoid defects, and reduce waste.

- This complements the patient experience domain which is focused on achieving patient satisfaction.

- Improvements in patient satisfaction should be approached with the goal of enhancing long term success through customer satisfaction.
MEASURING QUALITY METRICS

• Improving metrics involves detecting and correcting errors.

• It is vital to properly identify where improvements should be made in the process of care delivery.

• The objective nature of internal metrics simplifies their measurement and allows straightforward calculations regarding improvement.

• Identify appropriate indicators such as HACs, VTEs, SSI, LOS, Readmissions, Patient Satisfaction
  • Look at overall numbers
  • Then on a procedure or physician level
MEASURING QUALITY METRICS

Metrics we oversee
- Quarterly vs. Monthly and Real Time
  - Patient Satisfaction
  - Readmissions
  - Length of Stay
  - CLABS Infection Rate Non-ICU
  - Infections
  - Case Times
  - Discharge Disposition
  - PE/DVT Cases
  - Surgical Site Infections
- Bundled Payments Data
<table>
<thead>
<tr>
<th>Division</th>
<th>Adult</th>
<th>Acute Discharges</th>
<th>Ambulatory Surgery/OP Cases</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td>ALOS</td>
<td>Actual</td>
</tr>
<tr>
<td>L065</td>
<td>Adult</td>
<td>3.2</td>
<td>65</td>
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<tr>
<td>L409</td>
<td>Adult</td>
<td>1.8</td>
<td>19</td>
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<tr>
<td>L351</td>
<td>Adult</td>
<td>1.5</td>
<td>103</td>
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<tr>
<td>L425</td>
<td>Adult</td>
<td>4.0</td>
<td>1</td>
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<tr>
<td>L194</td>
<td>Adult</td>
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<td>21</td>
</tr>
<tr>
<td>L281</td>
<td>Adult</td>
<td>3.3</td>
<td>40</td>
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<tr>
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<td>0</td>
</tr>
<tr>
<td>L412</td>
<td>Adult</td>
<td>2.6</td>
<td>22</td>
</tr>
<tr>
<td>L101</td>
<td>Adult</td>
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<td>15</td>
</tr>
<tr>
<td>L427</td>
<td>Adult</td>
<td>2.4</td>
<td>17</td>
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<td>L359</td>
<td>Adult</td>
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<td>48</td>
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<tr>
<td>L051</td>
<td>Adult</td>
<td>3.1</td>
<td>23</td>
</tr>
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<td>L156</td>
<td>Adult</td>
<td>3.4</td>
<td>17</td>
</tr>
<tr>
<td>L428</td>
<td>Adult</td>
<td>3.2</td>
<td>110</td>
</tr>
<tr>
<td>L360</td>
<td>Adult</td>
<td>2.9</td>
<td>58</td>
</tr>
<tr>
<td>L272</td>
<td>Adult</td>
<td>2.9</td>
<td>22</td>
</tr>
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<td>L415</td>
<td>Adult</td>
<td>0.0</td>
<td>0</td>
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<tr>
<td>L348</td>
<td>Adult</td>
<td>4.5</td>
<td>14</td>
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<td>L155</td>
<td>Adult</td>
<td>2.5</td>
<td>81</td>
</tr>
<tr>
<td>L142</td>
<td>Adult</td>
<td>1.0</td>
<td>3</td>
</tr>
<tr>
<td>L375</td>
<td>Adult</td>
<td>2.8</td>
<td>52</td>
</tr>
<tr>
<td>L145</td>
<td>Adult</td>
<td>2.7</td>
<td>7</td>
</tr>
<tr>
<td>L362</td>
<td>Adult</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td>L331</td>
<td>Adult</td>
<td>3.0</td>
<td>1</td>
</tr>
<tr>
<td>L422</td>
<td>Adult</td>
<td>2.8</td>
<td>20</td>
</tr>
<tr>
<td>L426</td>
<td>Adult</td>
<td>3.4</td>
<td>47</td>
</tr>
<tr>
<td>L147</td>
<td>Adult</td>
<td>0.0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.7</td>
<td>848</td>
</tr>
</tbody>
</table>
PATIENT SATISFACTION AND PHYSICIAN FEEDBACK

• We distribute physician specific patient experience scores (both inpatient and ambulatory) as well as quality data.

• Low score outliers are contacted to understand the etiology of the score variation and are offered assistance for improvement.

• The purpose of this exercise is to promote self-awareness and improve patient care and is both financially and philosophically the right thing to do.
GAINSHARING AND PHYSICIAN METRICS

• NYU Hospital for Joint Diseases implemented a quality improvement and cost reduction incentive program (Gainsharing) by aligning incentives with that of eligible physicians.
• The program was intended to improve the efficiency of the delivery of inpatient medical and surgical services while maintaining as well as improving the quality of care.
• Physicians are compensated by reducing unnecessary medical services
  • Implementing more efficient practice patterns that could prevent delays in the discharge process
  • Using generic drugs whenever possible
  • Using ICUs and ORs in a more cost effective manner
  • Engaging in effective admission and discharge planning
• Gainsharing applies to commercial and Medicare and Medicaid managed care patients only
# GAINSHARING AND PHYSICIAN METRICS

## Quality Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Required Measures</th>
<th>Efficiency Measures</th>
<th>Patient Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality</td>
<td></td>
<td>On time first case</td>
<td>HCAHPS score, MD questions</td>
</tr>
<tr>
<td>Readmits (7- and 30-day)</td>
<td></td>
<td>Timely op note</td>
<td></td>
</tr>
<tr>
<td>Hosp Compare</td>
<td></td>
<td>LOS O:E</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SSI</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hosp-acquired VTE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Med recon</td>
<td></td>
</tr>
</tbody>
</table>

Quality driven value creation.
ENGAGING YOUR SURGEONS

• Although the days of fee for service may be coming to end many of your physicians may be against this paradigm shift in payment structure.

• Physicians generally mistrust hospitals. To work efficiently, the hospitals and the surgeons must work together.

• We recommend multiple strategies to prepare for this including gain sharing formulas and alignment strategies.

• By utilizing gain-sharing and monitoring quality, you will give your physicians a stake in the profits realized through care improvement.

• Real time quality dashboards and strategies for physician engagement are critical to insure physician cooperation.

• Accurate data and timely feedback are also necessary to insure confidence in the system. The value generated by the efforts of the care episode team can be shared by all stakeholders using a mutually agreed upon formula.
LEAN AND SIX SIGMA PRINCIPLES USED TO ACCELERATE IMPROVEMENT

• Improving speed, quality and cost
  • Define, measure, analyze, improve, control
    • Lead a team logically from defining a problem through implementing solutions linked to underlying causes, and establishing best practices to make sure the solutions stay in place.
• Process mapping
• Data collection
• Descriptive statistics and data displays
• Variation analysis
• Identifying and verifying causes
• Reducing lead time
• Selecting and testing solutions
**Charter Summary For:** Hand Surgery Relocation from the Operating Room to Procedure Room at 38th Street Ambulatory Surgery Center

**Project Mission:**
To improve operating room utilization as well as to cut excess expenses without affecting quality.

**Background/Problem Statement:**
- Currently a multitude of hand procedures are performed in an operating room.
- The operating room items are not utilized for these procedures and the operating room space is taken up when it can be used for another case.
- Some cases have 20 trays which are 15 pounds a piece, a large portion of these instruments remain unused (90%) (standard hand surgery set).
- There are many patient handoffs between nursing staff during a case.

**Objectives:**
- Create a future state process to move carpal tunnel and trigger finger release procedures to procedure rooms from operating rooms.
- Clearly define staff roles and responsibilities for the future state.
- Design a future state process for wide awake hand surgery procedures that improves the patient experience.
- Decrease nurse-patient handoffs (currently nurses may switch off during a case, this will be eliminated or less likely to occur with the new process).
- Reduce unnecessary expenses with wasted instruments, anesthesia and nursing time as well as moving more cost effective procedures to operating rooms.
- Create a physical layout of equipment and supplies which optimize patient flow and improve staff satisfaction.

**Measures:**
- Amount of time physician spends on the procedure.
- Reduce the number of unnecessary trays by 100%.
- Reduce the amount of time a patient spends in the recovery process.
- Cost implications from procedure relocation.
- In the process of creating a base set of measures.

**Project Scope:**
From the time the procedure is scheduled until patient leaves recovery.

**Monument(s):**
- Some patients may be too scared to be awake for a procedure thus anesthesia may need to be called for the case.

**Project Dates:** 2/25/2015 – 2016Q1

**Champion:**
Joseph Bosco, MD

**Sponsor:**
Deb Cicala, RN

**Team Leader(s):**
Lorraine Hutzler

**Team Members:**
- Hand Physicians
- Steve Yang, MD
- Michael Rettig, MD
- Nader Paksima, DO
- EPIC Team Representative
- Anesthesia
- Nursing
- Pre-Admission Testing
- Central Supply

**Subject Matter Experts:**
- LMO
- Quality/Compliance
- Revenue Cycle

**Supportive Leadership:**
- Director of Outpatient Surgery
- Hand Surgery Team

**Green Belt:**
Nancy Jacoby
## Base Metrics for Trigger Finger and Carpal Tunnel Procedures:

<table>
<thead>
<tr>
<th></th>
<th>For FY Ending August 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual number of hand procedures performed by surgeon in the 38th street ORs</td>
<td>1,336</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Trigger Finger</th>
<th>Carpal Tunnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>CY14 Cases</td>
<td>150</td>
<td>275</td>
</tr>
<tr>
<td>Average Incision Time (minutes)</td>
<td>14.24</td>
<td>20.47</td>
</tr>
<tr>
<td>Average Case Time (minutes)</td>
<td>35.15</td>
<td>44.74</td>
</tr>
<tr>
<td>Average PACU Time (minutes)</td>
<td>87.12</td>
<td>94.71</td>
</tr>
<tr>
<td>Cost for anesthesia team</td>
<td>$1,500</td>
<td>$1,500</td>
</tr>
<tr>
<td>Cost of operating room time</td>
<td>$60-80 per minute</td>
<td>$60-80 per minute</td>
</tr>
<tr>
<td>Number of instruments provided on a tray compared to actual number of instruments used, cost implications (Deb) (Currently 50 instruments on a tray reduce to 10)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central supply cost per tray (Goldstein)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Cost of medications given during procedure

<table>
<thead>
<tr>
<th>Drug</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lidocaine 1% PF 30ml vial</td>
<td>$1.71/vial</td>
</tr>
<tr>
<td>Lidocaine 2% PF 5ml vial</td>
<td>$1.48/vial</td>
</tr>
<tr>
<td>Triamcinolone 40mg/ml-1ml vial</td>
<td>$8.12/vial</td>
</tr>
</tbody>
</table>
One Page Summary: Hand Surgery Relocation from the Operating Room to Procedure Room at 38th Street Ambulatory Surgery Center

Problem/Background
- Currently, a multitude of hand procedures are performed in operating rooms at the 38th Street ASC.
- The operating room items are not utilized for these procedures and the operating room space is taken up when it can be used for another case.
- Some cases have 20 trays which are 15 pounds each, a large portion of these instruments remain unused (90%) (standard hand and surgery set).
- There are many patient handoffs between nursing staff during a case.

<table>
<thead>
<tr>
<th>Case Metrics for Trigger Finger and Carpal Tunnel Procedures:</th>
<th>For FY ending August 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual number of hand procedures performed by surgeon in the 38th Street ASC</strong></td>
<td>1,224</td>
</tr>
<tr>
<td><strong>Costs</strong></td>
<td><strong>Trigger Finger</strong></td>
</tr>
<tr>
<td><strong>Cost of supplies and equipment</strong></td>
<td>$9,000</td>
</tr>
<tr>
<td><strong>Cost of medications given during procedure</strong></td>
<td>$1,000</td>
</tr>
<tr>
<td><strong>Cost of supplies and equipment</strong></td>
<td>$8,000</td>
</tr>
<tr>
<td><strong>Cost of medications given during procedure</strong></td>
<td>$8,000</td>
</tr>
</tbody>
</table>

Goals/Objectives
- Create a future state process to move carpal tunnel and trigger finger release procedures to procedure rooms from operating rooms.
- Clearly define staff roles and responsibilities for the future state.
- Design a future state process for wide-wake hand surgery procedures that improves the patient experience.
- Decrease nurse-patient handoffs (currently nurses may switch off during a case, this will be eliminated or less likely to occur with the new process).
- Reduce unnecessary expenses with wasted instruments, anesthesia and nursing time as well as moving more cost-effective procedures to operating rooms.
- Create a physical layout of equipment and supplies which optimize patient flow and improve staff satisfaction.

The Team (RIE Dates 05/19/2015-05/20/2015)
- Champion: Joseph Bosco, MD
- Sponsor: Deb Cicola, RN
- Team Leader(s): Lorraine Hutzler
- Depts: Orthopaedic Surgery, Anesthesia, Nursing, Pre-Admission Testing, Central Supply, EPIC Team
- Black Belt: Paola Torres

Event Discoveries
- Patients without comorbidities will be medically cleared by hand surgeons without PAT involvement.
- The use of local anesthetic will allow patients flexibility in scheduling their procedures and improve patient satisfaction as they no longer require a companion to escort them home.
- The lack of anesthesia equipment in the room, the use of a standardized small hand set and less draping will improve room turnover time.
- Physicians will be able to book additional procedures without using their OR block time.
- Potential cost savings associated with custom packs and decreased instrument processing for cases.

Outcomes
- Do not need an anesthesia for patient clearance.
- Lack of clarity regarding union rules, nursing options and procedure room staffing requirements.

Next Steps/Continuous Improvement
- Team needs to obtain clarification from hospital leadership regarding Anesthesiology/PAT involvement for patients with comorbidities, cases that cannot be done at 38th Street without approval from the medical director.
- Need to identify new type of surgery gown/apparel for these procedures.
- Create a standard small surgical hand set for these procedures.
- Need to determine OR staffing requirements.
- Understand the regulations for a Class A operating room (Article 28 Regulations).
- Determine appropriate location for procedure room usage until construction is complete.
- Partner with anesthesia to create criteria on patient’s appropriate for these procedures.
EXTERNAL METRICS

• In the patient care domain outcomes are governed by: patient preferences, attributes, expectations, and perceptions.

• These factors are difficult to measure and vary from person to person and population to population.
  • HCAHPS provides a standardization for this.

• To improve patient satisfaction it is imperative to be aware of the standards that comprise its evaluation: aspects of hospital experience including communication with doctors and nurses, responsiveness of hospital staff, cleanliness and quietness of the hospital environment, effectiveness of pain management, communication about medications, receipt of discharge information, and whether they would recommend the hospital to others.
EXTERNAL METRICS CONTINUED

• Patient dissatisfaction is likely when patients experience adverse side effects from treatment or are harmed as a result of medical errors.

• Two concepts that must be kept in mind for these patients are service recovery and the grapevine effect.
  • **Service recovery** is the process of restoring a patient’s trust and confidence in the ability of the hospital or doctor to provide high quality care.
  • This includes a 6 step process for intervening: apologize for and acknowledge the error, listen, empathize, ask open ended questions, fix the problem quickly and fairly, offer atonement, follow up and remember promises made to the patient.
  • The **grapevine effect** stems from the observation that only 50% of unhappy customers complain to the offending organization, but 96% will tell 9 or 10 friends about a bad experience.
MOVING FORWARD

• Increasing pressure to provide value presents a new set of challenges to the current healthcare practices.

• The goal of obtaining the best clinical outcome has always guided and will continue to guide medical decision making, physicians have never been forced to document quality because the focus had been on maximizing clinical volumes.

• Monetary pressure to cut costs while improving outcomes represents a new force in the marketplace.

• Applying principles of quality management is vital to comply with the changing structure of healthcare reimbursements and to provide the best care for an aging population.
THANK YOU!

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[ www.labradorhealthcareconsulting.com](http://www.labradorhealthcareconsulting.com)