Perioperative Surgical Home

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Disclosure

- None

Learning Objectives

- What is the PSH model?
- Why do we need it?
- Role of Anesthesiologist in PSH
- Examples of existing PSH models
- Future models of payment
- What is the ASA doing about PSH?

What is the PSH Model?

- Patient Centered
- Physician led Multidisciplinary
- Team based Coordinated Care
- Surgery Decision
- Scheduling
- Discharge
- Post Care
- Pre optimization
- Surgical event

Goals of PSH

- Patient safety
- Efficient, coordinated care
- Better patient outcomes
- Cost effectiveness

Why do we need a PSH?

- Healthcare in the U.S is expensive!
- Surgical care accounts for 65% of all hospital expenses
**U.S. Healthcare Expenditure**

![Chart 1: Health expenditure per capita, public and private, 2009 (or nearest year)](chart1)

![Chart 2: Total health expenditure as a share of GDP, 2009 (or nearest year)](chart2)

**Triple Aim**

Institute for Healthcare Improvement

- Improving patient experience
- Improving health of populations
- Reducing per capita cost of health care

**Current Perioperative Care**

- Extremely expensive
  - ~60% of hospital expenses
- Fragmented care with little coordination
- Physicians practicing with an individualistic, artisan-like approach
- Volume driven reimbursement
- Preoperative evaluation is often variable
  - Little consensus on consults/lab testing
- Post operative care is variable & disorganized
  - No clinical pathways
- Poor accountability
  - Multiple handoffs
- Multiple preventable complications
  - Pneumonia, VTE, AMI, wound infections

**Eliminating Waste in U.S. Healthcare**

<table>
<thead>
<tr>
<th>Category</th>
<th>Average Cost ($ Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failures of care delivery</td>
<td>128</td>
</tr>
<tr>
<td>Failures of care coordination</td>
<td>35</td>
</tr>
<tr>
<td>Over-treatment</td>
<td>192</td>
</tr>
<tr>
<td>Administrative complexity</td>
<td>248</td>
</tr>
<tr>
<td>Pricing failure</td>
<td>131</td>
</tr>
<tr>
<td>Fraud and abuse</td>
<td>177</td>
</tr>
<tr>
<td>Total</td>
<td>910</td>
</tr>
<tr>
<td>% of Total Spending</td>
<td>34%</td>
</tr>
</tbody>
</table>

*Average annual cost to US Healthcare in 2011* by Berwick DM, JAMA 2012
Added Value

- Purchasers of care are demanding added value
- Value = Quality/Cost
- Patient outcomes per $ expended
- Reward for:
  - Best overall care
  - Lowest cost
  - Minimize complications

Value Based Purchasing

- New program from CMS to measure a hospital’s quality of care and adjust Medicare reimbursements
- Hospitals receive incentive payments based on how well they perform

<table>
<thead>
<tr>
<th>No.</th>
<th>Measures</th>
<th>Weightage</th>
</tr>
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<tbody>
<tr>
<td>12</td>
<td>Clinical process measures</td>
<td>70%</td>
</tr>
<tr>
<td>9</td>
<td>Patient experience measures</td>
<td>30%</td>
</tr>
</tbody>
</table>

VBP Clinical Process Measures

- Healthcare Associated Infections
  - Prophylactic Abx within 1 h of surgical incision
  - Prophylactic Abx selection
  - Abx discontinued within 24 h
  - Cardiac surgery pts with controlled 6 am postop glucose
- Surgical Care Improvement
  - VTE prophylaxis ordered in surgery pts
  - VTE prophylaxis within 24 h
  - Periop beta blocker use
- Acute MI-
  - Fibrinolytic therapy within 30 min of hospital arrival
  - PCI within 90 min of arrival
- Heart Failure
  - Discharge instructions
- Pneumonia
  - Blood Cx in ED before Abx
  - Initial Abx selection for CAP in immunocompetent pts

VBP Patient Experience Measures

HCAHPS Survey

- Nurses communicated well (always)
- Physicians communicated well (always)
- Help received quickly (always)
- Pain controlled well (always)
- Staff explained medicines (always)
- Room and bath kept clean (always)
- Area quiet at night (always)
- Given discharge instructions (yes)
- Overall hospital rating (high)
- Would recommend hospital (definitely)
Value based purchasing

- Hospitals are scored for each measure and how much improvement they show
- Hospitals with higher scores get more incentive payments
- Percentage reduction in DRG payment to fund the incentive payment

<table>
<thead>
<tr>
<th>Year</th>
<th>Value Based Purchasing</th>
<th>30-day readmission</th>
<th>Hospital Acquired Conditions</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>1%</td>
<td>1%</td>
<td>Retained foreign objects</td>
<td>2%</td>
</tr>
<tr>
<td>2014</td>
<td>1.25%</td>
<td>2%</td>
<td>Air embolism</td>
<td>3%</td>
</tr>
<tr>
<td>2015</td>
<td>1.5%</td>
<td>3%</td>
<td>Blood incompatibility</td>
<td>5%</td>
</tr>
<tr>
<td>2016</td>
<td>1.75%</td>
<td>3%</td>
<td>Stage III/IV pressure ulcers</td>
<td>6%</td>
</tr>
<tr>
<td>2017</td>
<td>2%</td>
<td>3%</td>
<td>Falls &amp; trauma</td>
<td>6%</td>
</tr>
</tbody>
</table>

Percentage reduction in DRG payment:
- FY 2013: 1%
- FY 2014: 1.25%
- FY 2015: 1.5%
- FY 2016: 1.75%
- FY 2017: 2%


Hospital Acquired Conditions

- Retained foreign objects
- Air embolism
- Blood incompatibility
- Stage III/IV pressure ulcers
- Falls & trauma
- Poor glycemic control- DKA, hypoglycemic coma
- Catheter associated UTI
- Surgical site infections
- Mediastinitis after CABG
- SSI after bariatric surgery for obesity
- SSI after Ortho: spine, neck, shoulder, elbow
- SSI after Cardiac Implantable Electronic Device
- DVT/PE following knee/hip replacement
- Iatrogenic pneumothorax with venous catheterization

30-Day Readmission Rates

The Revolving Door: A Report on U.S. Hospital Readmissions

- One in eight Medicare patients were readmitted to the hospital within 30 days after surgery in 2010
- One in six patients returned to the hospital within a month after medical care

Hospital Medicare Payment at Risk

- Value based purchasing
- 30-day readmission
- Hospital Acquired Conditions
- TOTAL

Paradigm Shift

Current care
- Fragmented care
- Discounted Fee for Service
- Volume based reimbursement
- Isolated patient files
- Focus on procedure
- Revenue driven

Future models
- Collaborative care
- Bundled payments
- Value based reimbursement
- Integrated electronic medical records
- Focus on triple aim
- Outcomes driven
Why Anesthesiologists?

- Uniquely qualified to lead the PSH
- No one knows the perioperative practice better
- Leaders in patient safety
- Medical knowledge that crosses all disciplines, focused on the impact of the surgery
- Best way to demonstrate the ‘added value’ we provide beyond surgical anesthesia

Why Anesthesiologists?

- Several leadership roles
- Best positioned to facilitate
  - Evidence based standardization of practice
  - Achieving key health care metrics
- If we don’t take the lead, someone else will
- The risks associated with “doing nothing” are too great

PSH Principles

- Coordinated care
- Preoperative evaluation
- Intraoperative care
- Postoperative care
- Quality & Safety
- Payments

PSH at UAB

The Perioperative Surgical Home: how can it make the case so everyone wins?

“Perioperativist”

Preoperative Preparation

- Comprehensive evaluation +/- consultation
- Confirm/resolve surgical consent
- Identify, communicate & minimize risk
- Evidence based preoperative diagnostic testing
- Shared decision making
- Individualized perioperative care plan

Intraoperative Phase

- Reducing case delays & cancellations
- Anesthesiologist as OR Coordinator
- Evidence based standardization of care
- SCAMP
- Flexible regimentation
Postoperative Care

Anesthesiologist-Intensivist as perioperative physician

Discharge Planning
Acute Pain Service

UC Health’s Journey

Phase I
• Standardized UC Health Wide Preoperative Approach

Phase II
• Joint Replacement Surgical Home

Phase III
• Urological Surgical Home

Locations
System-wide
3 campuses
2 campuses

Stage
Preoperative
All Stages
All Stages

Clinical Focus
ALL Elective
Elective Orthopedics
Elective Urological

UC Health's Process

Phase I
UC Wide Steering Committee
• Focused on standardizing preoperative care
• Regular conference calls

Phase II
Individual Campus Leadership Group
Joint Surgical Hospital
• Leadership group with reps from 6 teams
• Meets weekly; trained in Lean Six Sigma

Team Members
Anesthesiologists
Surgeons
Nurse managers
Hospitalists
Pain Management
Pharmacy
Resp Therapy
PT/OT
Discharge planning
Quality/safety reps
Data analysts
Social work

Joint Replacement Surgical Home

Decision to operate
• Shared decision making
• Discharge planning (exp date of discharge)

Preop
• Early Anesthesia intervention, preop risk assessment
• Tailored optimization (Hb, statin, beta blocker, VTE)
• Patient education and expectation management
• Preoperative therapy prescriptions

Intra op
• Standardized protocols for tailored anesthesia care
• Standardized protocols for equipment and nursing
• Infection prevention strategies
• Optimize fluid management therapy
• Multimodal analgesia

Post discharge
• Targeted recovery plan
• Early ambulation PT/OT
• Multimodal analgesia
• Early removal of drains and catheter
• Nutrition management
• Early intervention for deviation from recovery goals

UC Irvine Health
School of Medicine
Quality Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Result</th>
<th>Benchmarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of stay</td>
<td>2.7 days (avg)</td>
<td>Pathway: 3 days</td>
</tr>
<tr>
<td>Unplanned 30 day readmission</td>
<td>0.5%</td>
<td>&lt;4.4% (NSQIP)</td>
</tr>
<tr>
<td>Case cancellation rate</td>
<td>0.5%</td>
<td>&lt;1.5% (Institutional)</td>
</tr>
<tr>
<td>On-time first case starts</td>
<td>90.9%</td>
<td>&gt; 85% (Institutional)</td>
</tr>
</tbody>
</table>

Mayo Clinic Total Joint Regional Anesthesia Clinical Pathway

Preop
- Preoperative patient education program
- Comprehensive medical evaluation/optimization
- Management of preoperative pain/fear/anxiety

Intraop
- Comprehensive multimodal analgesia regimen
- Peripheral nerve block/catheters
- PACU algorithms for post operative pain

Postop
- Standardized pain assessment scores
- Multidisciplinary Acute Pain Service
- Clinical protocols for postop pain management
- Early & accelerated rehabilitation program


Cost Savings of PSH

- Reduces variability of cost
  - Variability in preop assessment, labs, consults
  - intra-op variability- implants, instruments, drugs
  - Post op length of stay
- Reduced preoperative testing
- Preoperative optimization reduces LOS
- Intraoperative efficiency
- Decreases potentially avoidable complications
- Decreases rework, including readmissions
- Standardization of Physician Preference Items decreases costs

Getting Paid in the PSH Model

- Recognizes the value of patient centered management
- Pays for coordination of care among services
- Supports use of HIT for quality improvement
- Recognizes the value of non-face-to-face care
- Allows physicians to share savings from reduced LOS, decreased complications
- Allows incentives for achieving quality metrics

ASA White Paper 2013
Requirements for Success

• Strong support from Leadership
• Alignment with Institutional goals
• Buy-in from group members
• Multidisciplinary team based approach
• Standardization of care protocols
• Accountability for follow through
• Continuous outcomes measurement and tracking
• Continuous process improvement

Future Models of Payment

Value driven coordinated care
Traditional Capitation
Comprehensive Care Payment
Fee for Service
Episode of care payment ‘Bundled’
Volume driven fragmented care

Which payment model is best?

Cost per episode

Episode of care payment
• Hip fractures, labor & delivery

Comprehensive care payment
• Heart disease, back pain

Fee-for-service
• Immunizations, simple injuries

Comprehensive care payment
• COPD, CHF

Examples of Bundled Payments

Geisinger Health System’s Proven Care
• Bundled payment for all non-emergent CABG including
  • preoperative evaluation
  • all hospital & professional fees
  • management of complications/readmissions within 90 days
• Lowered hospital costs by 5%
• Lowered LOS by 0.5 day
• Reduced complications by 21%
• Avoided readmissions by 44%

Medicare Acute Care Episode (ACE) Demonstration

• Flat fee to cover hospital and physician services for cardiac and ortho care in five hospitals

Orthopedic
• Hip replacement
• Knee replacement
• LE joint replacement

Cardiac
• CABG
• Valve Replacement
• Pacemaker insertion
• AICD implantation

Shared Savings with hospitals, providers and patients

1. Hillcrest Medical Ctr, Tulsa OK
2. Baptist Health System, San Antonio
3. Oklahoma Heart Hospital
4. Lovelace Health, Albuquerque
5. St. Joseph Hospital, Denver

Bundled Payment for Care Improvement (BPCI) Initiative

• From CMS, started Jan 2013
• Four payment models
  • Model 1- Retrospective Acute Care Hospital Stay
  • Model 2- Model 1 + Post Acute Care
  • Model 3- Retrospective Post Acute Care Only
  • Model 4- Prospective Acute Care Hospital Stay
• Encourages hospitals to engage in clinical redesign and care coordination
ASA’s Role in PSH

- ASA Committee on Future Models of Anesthesia Practice
- White Paper – July 2013

White Paper - July 2013
ASA Committee on Future Models of Anesthesia Practice
ASA Perioperative Surgical Home Brief

http://www.periopsurghome.info/images/PSH_Whitepaper.pdf

PSH Literature

The Perioperative Surgical Home (PSH)
A Comprehensive Literature Review for the American Society of Anesthesiologists

Submitted to the American Society of Anesthesiologists (ASA)
August 30, 2013
ASA Committee
Thomas C. Miller, MD, MBA
Director of Health Policy Research, ASA

PSH Webinar

- www.ahaphysicianforum.org/webinar/2013/perioperative-home/index.shtml

Conclusions

- Patient centered, physician-led multidisciplinary & team based system of coordinated care
- Triple aim of better health, better health care and reduced costs
- Expanded role of Anesthesiologist in PSH
- No outcome = No income
- “It wasn’t raining when Noah built the arc”
- “The best way to predict the future is to create it” - Drucker PF.