Role of the PAT nurse in assessing patient risk

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PAT: Pre-Anesthesia Teaching
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- 3,100 surgeries per year
- 35 surgeons, 2 PAT nurses
- 80% ambulatory care; 20% inpatient
- Physician affiliation DHMC
Objectives for Today:

• Factors leading to change
• Key elements of new process
• *Expanded role of PAT nurse*
• Outcomes, data
• Next steps
Frank’s Story
Interviews

• Chief Medical Officer
• Patient Safety Specialist
• Anesthesiologists
• Internists & PCP’s
• Surgeons
• Nurses
• Support Staff
Challenge #1:

- RISK IDENTIFICATION NOT RELIABLE
  - Not well defined
  - No double check

80% cases identified (too low)

Sample of 128 elective cases Mar, Apr 2011
Challenge #2:

High Risk Patients did not reliably get Medical Eval

- Questionable value
- Not enough time
- Unclear expectations

75% got evaluation (too low)

Sample of 128 elective cases Mar, Apr 2011
Challenge #3:

HIGH RISK PATIENTS UNDERIDENTIFIED

• Identification not reliable
• If missed, not detected

Only 9.8% identified (too low)

Data from earlier phase of project, collected 2009
Summary:

**Develop reliable process for:**

- Risk identification
- Medical evaluation

**FOCUS:** Timely flow of information
Change #1: Define High Risk

- Polypharmacy (7+)
- Active cardiac disease
- Poorly controlled hypertension
- Diabetes requiring medication
- Sleep apnea
- Anticoagulation
- *If clinical intuition raises the question*
Change #2: Booking Report

RN VERIFY risk category

RN & Anesthesia UPGRADE risk category based on assessment of patient history
Change #3: Medical Eval

- HIGH RISK
  YES!

- NORMAL RISK
  NO!
Change #4: Clinical Information

Orders, Consent, H&P

Assemble chart
Change #5: Medical Eval

- Medical problems
- Medication list
- Would delaying the procedure allow to better control any of the following:
  - HgA1C over 7
  - Poorly controlled hypertension or heart disease
  - Active infections
  - Sleep apnea
  - Anticoagulant therapy
Change #6: Booking Script

• Urgent? Elective?
• High Risk? Normal Risk?
• If High Risk, name of PCP
Change # 7: Booking Window

• High Risk Patients
  Optimal interval 14 days

• All Other Patients
  Minimal interval -- 7 days
Change #8: Feedback

Risk Factors

Anesthesia Signatures
Methods & Tools

• Process maps
• Algorithms
• Data
Process Maps

1. Decision for surgery
2. Complete risk form
3. Call OR to schedule case; (risk score)
4. Complete H&P, consent, orders
5. Schedule medical evaluation with PCP or specialist
6. Schedule PAT appt
7. Complete H&P, consent, orders
8. Fax to PAT

Decision for surgery: Complete risk form
Call OR to schedule case; (risk score) < 5
Schedule PAT appt
Complete H&P, consent, orders
Fax to PAT

Decision for surgery: Complete risk form
Call OR to schedule case; (risk score) > 5
Schedule medical evaluation with PCP or specialist
Schedule PAT appt
Complete H&P, consent, orders
Fax to PAT
**Decision Algorithm**

**DECISION TO PERFORM SURGERY**

**URGENT OR "ADD ON"**
- Based on medical need
  - Booking < 7 days
    - Requires call to anesthesia

**ELECTIVE**

**NORMAL RISK**
- Based on assessment of patients medical condition

**HIGH RISK**
- Based on assessment of patients medical condition

**Medical Evaluation Completed?**
- NO
  - Booking > 14 days
    - RECOMMENDED BOOKING INTERVAL
      - Allow time for Anesthesia, PAT review & medical evaluation
  - Booking < 14 days
    - SHORT NOTICE OR CONVENIENCE

**Booking > 7 days**
- RECOMMENDED BOOKING INTERVAL
  - Allow time for Anesthesia, PAT review

**Booking < 7 days**
- Exceptions: ESWL, Dental, Port-A-Cath, Pacemakers, ENT cases < 16 yo
  - Condenses time for Anesthesia, PAT review

**Booking < 14 days**
- SHORT NOTICE OR CONVENIENCE
  - Condenses time for Anesthesia, PAT review
Challenge #1

RISK IDENTIFICATION NOT RELIABLE

80% cases identified (too low)

SIMPLIFY DEFINITIONS, GIVE FEEDBACK

100% cases identified (88% surgeon, 12% PAT nurse)

Sample of 128 elective cases Mar, Apr 2011; project data 2012.
Patient Risk Identification, Surgeons

Hit or Miss

FAX

- Hit Rate: \( \bar{X} = 0.88 \)
- Lower Control Limit (LCL): 0.634
- Upper Control Limit (UCL): 1.129

77%
Challenge #2:

HIGH RISK PATIENTS DID NOT RELIABLY GET MEDICAL EVAL

75% got evaluation (too low)

WORKFLOW CHANGE “HARD STOP”

100% got evaluation

Sample of 128 elective cases Mar, Apr 2011; project data 2012
Challenge #3

HIGH RISK PATIENTS UNDERIDENTIFIED

Only 9.8% identified (too low)

RELIABLE PROCESS CLEAR EXPECTATIONS

Now 26% identified

Data from earlier project collected 2009; new project data 2012
Proportion of High Risk Patients Identified in our Surgical Population

**Percent X = 0.26**  
UCL = 0.451  
LCL = 0.071

Week Ending:
- 11-Nov
- 9-Dec
- 6-Jan
- 3-Feb
- 2-Mar
- 30-Mar
- 27-Apr
- 25-May
- 22-Jun
- 20-Jul
- 17-Aug
- 14-Sep

18%
Optimizing Patients for Surgery
Survilliance of High Risk Patients
Comparison 2009 and 2012

Data Sources: PICIS Booking Data/Loomis/Reed
Issues Still to be Addressed:

- **Clinical**
  - Anticoagulation **
  - Beta blockers
  - Poorly controlled diabetes
  - Sleep apnea **
  - Obesity

- **Process**
  - Post op co-management
  - Short notice booking
Summary

• Identified a problem
• Interviewed key stakeholders
• Reviewed literature
• Developed a new process
• Used data to keep the process on track
• **After 1 yr – reliable process**
Questions

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