Nursing and Anesthesia Collaboration is Key to Right Site/Side Procedures and Improving Quality

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Learning Objectives

- Create a collaborative, patient centered nursing and anesthesia team
- Implement a Local and Regional Anesthesia Procedural Safety Checklist
- Improve processes related to anesthesia procedures
# Penn State Hershey Medical Center at a Glance

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
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<tbody>
<tr>
<td>Beds:</td>
<td>551</td>
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<tr>
<td>Total Admissions:</td>
<td>27,721</td>
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<tr>
<td>Total Outpatient Visits:</td>
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<td>ED Visits:</td>
<td>67,128</td>
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<td>Births:</td>
<td>1,700</td>
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</table>
Annual Regional and Local Anesthesia Procedures

- 1300 epidurals
- 3600 block procedures
- Procedures increasing at 4% per year
- Multiple locations: Pre-op, OR, PACU, L&D
- Multiple anesthesiologists, residents and certified nurse anesthetists
Surgery Related Never Events

- Most frequently reported never event: Surgery or other invasive procedure performed on the wrong body part.

- Across Pennsylvania (July 2006 to September 2013)
  - 551 wrong-site procedures in 192 facilities.
  - 116 (21%) were wrong-site anesthesia blocks.

- More wrong-site anesthesia blocks than any other procedure.

The National Quality Forum’s Health Care “Never Events” (2011 Revision)
Types of anesthesia

The anesthesia you are given is based on your health, history, the procedure, and your choices.

Regional
produces a loss of feeling to a specific region of the body. A shot is given to numb the area that requires surgery.

General
affects the entire body. You have no awareness or feeling. You may breathe gases or vapors through a mask or tube. Drugs may also be given through an intravenous (IV) tube in your vein.

Local
produces a loss of feeling to a small, specific area of the body. A shot is given to numb the area.
Wrong Site Regional Block

- Left knee arthroplasty surgery and femoral & sciatic nerve block scheduled.

- Popliteal & saphenous nerve block done
Root Cause Analysis

- Time out process not adequately addressing patient safety or meeting institutional and regulatory requirements for universal protocol
Contributory Factors

- Communication
- Continuity of Care
- Teamwork
- Information
- Standardized Processes
- Time Out Process
- Block Scheduling
- Wrong Site Anesthesia Block
Contributing Factor: Teamwork and Continuity of Care

**Teamwork**
- Nurse and anesthesia workflow silos
- Ownership of patient experience
- Relationships between nursing and anesthesia

**Continuity of Care**
- Difference nurses check in patients and participate in Time Out
- Hand off issues with anesthesia providers
- During procedure no nurse with patient
Vision for Change

Build a collaborative team to improve quality and safety of patient care

- Identify strategic Project Champions
- Engage managers and empower front line clinicians
- Assign one nurse to patient from check in through sign out
  - Provide nursing care
  - Administer sedation
- Create Block Team of attending, resident/CRNA, and nurse
Contributing Factor: Time-Out Process

Time-Out Process

- Form outdated and missing required elements
- Policies not followed
- Surgical procedure not verified
- Form not completed properly
**POST PROCEDURE SIGN OUT**

7. **Anesthesia provider** confirms:
   - Vital signs documented
   - Ultrasound form completed
   - Catheters labeled
   - All medications and sharps properly disposed
   - Patient positioned
   - Hand off communication to attending operating room anesthesiologist including:
     a) Anesthesia procedure performed
     b) Sedation given
     c) Any concerns or complications

8. **Nurse** confirms:
   - Patient assessed
     o Vital Signs Stable
     o Monitoring continued
   - Safety measures implemented
     o Patient ID band intact
     o Side rails up
     o Call bell within reach
Contributing Factor: Information

- Information

Difference systems for tracking OR schedule – no “gold standard”

Lack of information about nurse/anesthesia provider assigned to patient
New Electronic Pre-operative Tracking Board

Prior duplicate, manual information processes

Electronic “Gold Standard” Information
Contributing Factor: Block Scheduling and Communication

Block Scheduling

- OR schedule changes
  - Procedures not communicated or verified until day of surgery
  - 50% scheduled are cancelled

Communication

- Inconsistent communication about OR schedule changes
- Reporting and handing off between nursing and anesthesia
Scheduling & Communication Changes

Conduct Prior Day mid-afternoon huddle with resident, attending, RN

- Review next day OR and anesthesia block schedule
- Send schedule to anesthesia providers and SDU nurses
- Complete tasks
  - Place pre-procedure medication orders
  - Add blocks to scheduling board

Conduct Day of Procedure morning huddle

Actual compared to scheduled blocks improved from ~ 50% to 75-80%, with no increase in staffing!
Methods

• Used best practices, LEAN, PDCA
  ▪ Addressed barriers for “quick wins”: laptops, supplies, room layout, equipment
• Piloted the changes
• Implemented in one area, then spread
  ▪ Same Day Unit, Post Anesthesia Care Unit, Operating Rooms
  ▪ Chronic Pain Clinic
  ▪ Other Procedural Areas
Monitor Performance

- Follow and document process
- Collect data – huddle report
- Identify issues
- Improve
Control Plan

Checklist process monitoring tool
Is process followed according to design?

Wrong-Site Anesthesia Prevention Observational Monitoring Tool

Perform 10 unannounced observations of regional or local blocks in the operating room (OR), preferably orthopedic cases with laterality, eye cases, and other procedures on extremities. For each blank box, indicate: Yes if element/action was completed as described. No if element/action was not completed as described, or N/A if not applicable.

<table>
<thead>
<tr>
<th>Scheduling/Consent (a standardized form is suggested)</th>
<th>CASE #1</th>
<th>CASE #2</th>
<th>CASE #3</th>
<th>CASE #4</th>
<th>CASE #5</th>
<th>CASE #6</th>
<th>CASE #7</th>
<th>CASE #8</th>
<th>CASE #9</th>
<th>CASE #10</th>
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<tbody>
<tr>
<td>Exact description of surgical procedure was on OR schedule (including site, side, digit)</td>
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<td>Anesthesia consent was completed (including exact anesthesia procedure, site, side, digit)</td>
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<th>Preoperative Verification (a standardized checklist is suggested)</th>
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<td>Verification included OR schedule</td>
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<td>Verification included history and physical (H&amp;P)</td>
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<td>Verification included patient’s understanding of the procedure</td>
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<th>Site Marking</th>
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<td>Site marking occurred before administration of anesthesia</td>
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<td>Site marking was referenced by anesthesia provider before administration of anesthesia</td>
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<td>Site marking was visible after patient was positioned, prepped, and draped for anesthesia</td>
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Outcomes: September 2013 – March 2014

- Conducted 2,446 anesthesia procedures
- Reported 3 incidents of checklist process not followed
- No wrong site/side procedures
- Nurses gained expertise and satisfaction in expanded block team role
- Increased Anesthesia provider satisfaction
- Successful implementation of best practices:
  - Teamwork
  - Anesthesia procedures safety checklist
  - Patient centered care
Lessons Learned
References


Questions?....