Enhanced Recovery
Implementing Meaningful Change

I have no relevant financial relationships to disclose.

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Learning Objectives
At the end of this presentation, the learner should be able to:

- Describe characteristics of an enhanced recovery pathway for GYN surgery.
- List several reasons why implementation of an ERAS pathway is beneficial to the patient and health system.
- Explain the steps necessary to implement an ERAS pathway at their institution.
What is ERAS?
A collection of best anesthesia and surgical practices bundled into one pathway.

Is Enhanced Recovery Possible In GYN?
Implementing a structured Enhanced Recovery After Surgery (ERAS) protocol reduces length of stay after abdominal hysterectomy

Results
Length of stay was significantly reduced in the study population after introducing the ERAS protocol from a mean of 2.6 (SD 1.1) days to a mean of 2.3 (SD 1.2) days (p = 0.011). The proportion of patients discharged at 2 days was significantly increased from 50% pre-ERAS to 71% after ERAS (p = 0.012). No differences were found in complications (5% vs. 3.9%) in primary stay, 12% vs. 15% within 30 days after discharge), reoperations (2% vs. 1%) or readmission (4% vs. 4%).

HOT TOPIC!
Conference Report
Society of Gynecologic Oncology 2016 Annual Meeting:
Highlights and context
4. Theme #3: surgical innovation
4.1. Enhanced recovery after surgery for gynecologic malignancies
At this year's surgical innovations session, Professor Olle Lyngqvist took us through his 15 year journey with implementing an evidence-based, multimodal perioperative care protocol (or "enhanced recovery pathway," ERP) for colorectal surgery in Sweden. This became the flagship protocol of the Enhanced Recovery After Surgery (ERAS®) Society upon its foundation in 2010. ERP interventions designed to reduce surgical stress, maintain normocongestive function, postoperatively, and enhance mobilization after surgery have consistently been shown to decrease length of hospital stay, complication rates and the cost of care [19].
Each Step Has Its Own Benefit.

**PREOP**
- Counseling
- Bowel Prep
- Carb Load
- Consents

**SURGERY**
- Multimodal Analgesia
- Regional/Neuraxial Blocks
- Opioid Sparing
- GDF
- Minimally Invasive Surgery

**RECOVERY**
- Multimodal Analgesia
- Early Oral Nutrition
- Early Mobilization
- Defined milestones
- Transition Planning

Associated with LOS < 5 days (OR, 1.26; 95% CI, 1.15-1.38)

Associated with lower SSI (OR, 0.46; 95% CI, 0.36-0.59)

Improved insulin resistance and indices of patient comfort.

Improves process flow and delays on day of surgery.

Reduced duration of ileus, reduced overall opioid consumption. Possible effects in reducing PACU discharge and Surgery-Extubation time.

Each Step Has Its Own Benefit.

Revised duration of ileus, reduced overall opioid consumption. Possible effects in reducing PACU discharge and Surgery-Extubation time.

Associated With LOS < 5 Days (OR, 1.24; 95% CI, 1.12-1.38) and reduced complications (OR, 0.68; P < 0.001)
Less insulin resistance, lower nitrogen losses, reduced loss of muscle strength. Reduced opioid dependence, reduced rates of ileus. Reduces rates of UTI, pneumonia, and ileus. Patient involvement in decision making and expectations for hospital course. Prescribed and ordered protocols to ensure properly timed events.

ERAS has a dose effect.

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Participants</th>
<th>Evidence</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical LOS</td>
<td>1740 (11 studies)</td>
<td>Low</td>
<td>Mean 2.44 days lower</td>
</tr>
<tr>
<td>Total LOS</td>
<td>855 (7 studies)</td>
<td>Moderate</td>
<td>Mean 2.39 days lower</td>
</tr>
<tr>
<td>Readmissions</td>
<td>1335 (11 studies)</td>
<td>Moderate</td>
<td>3 fewer per 1000</td>
</tr>
<tr>
<td>Complications</td>
<td>1910 (13 studies)</td>
<td>Low</td>
<td>139 fewer per 1000</td>
</tr>
<tr>
<td>Bowel Recovery</td>
<td>1335 (6 studies)</td>
<td>Moderate</td>
<td>1.02 days sooner</td>
</tr>
<tr>
<td>Mortality</td>
<td>1562 (9 studies)</td>
<td>Low</td>
<td>9 to 0 fewer per 1000</td>
</tr>
</tbody>
</table>

ERAS Provides a Way to Include Quality Measures into Your Practice

- Surgical site infection reduction
- Opioid Stewardship
- Standardized Ambulation Protocols
- Standardized Discharge/Early Home Health Care Screening

Problem: Surgical Site Infections

- Ertapenum to Cefazolin/Metronidazole
  - Broader coverage for Clostridium Difficile
  - IT Support included reminders for redosing on Anesthesia EMR
  - Antibiotic Protocol was spearheaded during ERAS initiative

Cost savings estimated to ~$126,000 annually

Reduced SSI savings?

Making the Change

The University of Alabama Birmingham Experience
This is the amount of time researchers have said it takes for basic research to be incorporated into clinical practice.

What is 17 Years?

John Kotter’s 8 Steps to Manage Change

- Establish a sense of urgency
- Create a guiding coalition
- Develop a vision and strategy
- Communicate the change vision
- Empower employees for broad-based action
- Generating short-term wins
- Consolidate gains and produce more change
- Anchor new approaches in the culture

Why Don’t We Change?

90% of Us are in the Top 10%
Our Patient Experience is Limited.

Recognize Barriers

A Qualitative Study to Understand the Barriers and Enablers in Implementing an Enhanced Recovery After Surgery Program

However, major barriers were identified, including the need for patient education, increased communication and collaboration, and better evidence for ERAS interventions. Identifying these barriers and enablers is the first step toward successfully implementing an ERAS program.

UAB Survey of Barriers

<table>
<thead>
<tr>
<th>Question</th>
<th>View all</th>
<th>Edit</th>
<th>Delete</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>33.33%</td>
<td>0</td>
<td></td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Barriers</td>
<td>8.88%</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enablers</td>
<td>21.67%</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Experience</td>
<td>20.83%</td>
<td>14</td>
<td></td>
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</tr>
</tbody>
</table>
Getting institution support is KEY

- Identify Clinical Champions
- Identify Executive Champions
- Identify Key Players

DEVELOP A VISION AND STRATEGY

CREATE A GUIDING COALITION

GENERATING SHORT-TERM WINS

82 Evidence Based Steps Identified
Enlist IT Support!

- Management requires some type of measurement
  - Benchmarks
  - Metrics
  - Goals
  - Data

<table>
<thead>
<tr>
<th>ERAS Elements</th>
<th>Definition/Element/Parameters</th>
<th>Documentation Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement information and counseling</td>
<td>% of patients that receive procurement information in the PACT</td>
<td>PACT ERAS documentation - depart</td>
</tr>
<tr>
<td>Preoperative bowel preparation (2 antibiotics + vitamin)</td>
<td>% of patients that receive appropriate bowel preparation (all 4 items + vitamin)</td>
<td>Clinic documentation of prescriptions. The NSQIP manual lists this as well. It might be a potential documentation source. Another option would be to use the prep checklist which is very general.</td>
</tr>
<tr>
<td>Preoperative multidose analgesia (acetaminophen, Celebrex, gabapentin)</td>
<td>% of patients receiving ANY medication in group 1/day or all groups</td>
<td>Prep marker: “IPA, Intrathecal, Spinal Procedure”</td>
</tr>
<tr>
<td>Preoperative intravenous fluids (normal saline, LVP)</td>
<td>% of patients receiving ANY of the fluids</td>
<td>Prep marker: “IPA, Intrathecal, Spinal Procedure”</td>
</tr>
</tbody>
</table>

Establish a sense of urgency

11/29/2016
Initially, all patients in the ERAS protocol will be identified by the surgeon. The PACT will be the point of first contact between Anesthesia and ERAS patients. Patient education will be provided via personal consult, handouts or educational video. PACT faculty or resident will consent the patient for single shot spinal. Preop medications will be ordered by surgery.

The ERAS concept has been used in Europe since 2001 with roots in Sweden.
How Do You Get Buy In?

- Continuous Pressure
  - You are the light!
  - Faculty Meetings
  - Presentations
  - Email Education
  - C-Suite Presentations

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Continuous Pressure

- You are the light!
- Faculty Meetings
- Presentations
- Email Education
- C-Suite Presentations

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ANCHOR NEW APPROACHES IN THE CULTURE

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1. I feel the ERAS Pathway benefits patients...
2. I feel the ERAS Pathway is easy to follow...
3. I feel comfortable implementing all parts of the ERAS Pathway...
4. I feel I have been given proper education on the ERAS Pathway...

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New and developing ERAS

- The process begins again, but with some of the heavy lifting already done.

CONSOLIDATE GAINS AND PRODUCE MORE CHANGE

- Create a coalition (executive and clinical leadership)
- Enlist IT support
- Empower the staff
- Recognize your institution's culture
- Educate and Communicate
- Seek quick wins for buy-in
- Build on success