Enhanced Recovery After Surgery (ERAS) – Implementation Challenges and Successes
August 14, 2019
Agenda

• Welcome & FHA Mission to Care HIIN Update
  – Cheryl Love, RN, BSN, BS-HCA, MBA, CPHRM, Director of Quality and Patient Safety and Improvement Advisor, FHA

• Enhanced Recovery After Surgery (ERAS): Implementation Challenges and Successes
  – Baptist Health – Francine Marabell, RN, MSN, CPHQ, CPPS, Safety and Clinical Quality Director; and Kathleen Johnson, RN, MSN, NE-BC, CRN, System Clinical Quality & Effectiveness
  – Ascension St. Vincent’s Southside – Melissa DiSciascio, MSN, RN, System Quality Manager; and Karen Grimes, BSN, RN, PAT/PACU Manager

• Upcoming HIIN Events and Opportunities

• Q&A
Health Care Disparities

What is Health Literacy, and Why is it Important?

Aug. 8, 2019

FHA Archived Event: Recording

Slides:
FHA Introduction & Resources
Health Literacy - Dr. Daniel Chu
Resources, Trainings and Tools

HRET HIIN Website – hret-hiin.org
ERAS: Optimizing Outcomes, Reducing the Cost of Care and Improving the Experience for the Surgical Patient

- Around since the mid-1990s in Europe
- Slow adoption in the United States
- Making the “Business Case”
<table>
<thead>
<tr>
<th>Harm Measure</th>
<th>Cost Savings</th>
<th>Harms Prevented</th>
<th>Lives Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSI Rate, Colon</td>
<td>$4,931,506</td>
<td>175</td>
<td>5</td>
</tr>
<tr>
<td>SSI Rate, Abd</td>
<td>$1,112,703</td>
<td>39</td>
<td>1</td>
</tr>
<tr>
<td>Post-Op Sepsis Rate</td>
<td>$5,061,302</td>
<td>298</td>
<td>77</td>
</tr>
<tr>
<td>VTE /DVT</td>
<td>$19,585,621</td>
<td>1,128</td>
<td>169</td>
</tr>
<tr>
<td>Readmission Rate 30-Day All Cause</td>
<td>$44,455,360</td>
<td>3,088</td>
<td>~</td>
</tr>
</tbody>
</table>

FHA HIIN Improvement Calculator, July 25, 2019
BAPTIST HEALTH SYSTEM IMPLEMENTATION OF ERAS

Presented By:

Francine Marabell, RN, MSN, CPHQ, CPPS
Safety and Clinical Quality Director

Kathleen Johnson, RN, MSN, NE-BC, CRN
Clinical Quality & Effectiveness
1. How many have implemented ERAS in at least one service line at their organization?

1. How many have implemented ERAS across all surgical specialties at their organization?
BAPTIST HEALTH SYSTEM
JACKSONVILLE, NE FLORIDA

Baptist Health System

- Baptist Medical Center Jacksonville (489 Beds)
- Baptist Medical Center South (287 Beds)
- Wolfson Children’s Hospital (202 Beds)
- Baptist Home Health Care (80,000 Visits)

- Baptist Medical Center Beaches (146 Beds)
- Baptist Medical Center Nassau (62 Beds)
- Baptist Physician Services
- Baptist Primary Care

Free Standing EDs (3)
Outpatient Services
WE ARE BAPTIST ERAS!!

Multidisciplinary ERAS Committee

Key Stakeholders
WHAT IS ERAS?

Enhanced Recovery After Surgery

- Evidence Based Protocol
  A set of standardized practices that is applied to all patients undergoing scheduled surgery. Generally not intended for emergent/urgent cases
- Denmark/England - 1990’s “Fast Track Surgery”
- Began with Colon Procedures – highest risk
- Reduces the body’s stress during and after surgery
PREOPERATIVE FOCUS

- Patient Readiness / Education
- Preoptimization:
  - Exercising body/ lungs / frailty
  - Smoking Cessation
  - Nutrition / Malnutrition
  - Diabetic Management
- Hydration & Carbohydrate Load
INTRAOPERATIVE FOCUS

- Multimodal Analgesia
- Regional Blocks
- Fluid Management
- Warming
- Glucose Management
- Antiemetic
POSTOPERATIVE FOCUS

- Mobilization
- Analgesia – Opioid Reduction
- Early Oral Nutrition
- Length of Stay Reduction
FEBRUARY 2017

Doctoral Study Partnership
• Dr. Craig Morgenthal – Chief General / Colorectal / Bariatric
• Carbohydrate Loading Effectiveness

AUGUST 2017

*** ERAS TEAM FORMATION ***

12/17 – 3/18 - Pilot - Dr. Morgenthal – Colon – Jacksonville Campus
4/18 – 12/18 - Expanded Pilot – Colon- North Florida Surgeons
ERAS PROGRESSION

HEALTH SYSTEM INTEGRATION – Adult Acute Care Hospitals

PHASED APPROACH

- Service line order set review and building ERAS content
- Work with provider practices to refine patient education material
- Implement communication plan with front line caregivers
- Performance Evaluation
### CLINICAL PRACTICE
- NPO / Carbohydrate Loading
- MD Anderson Cancer Center Houston
  - ERAS Symposium
  - Collaboration
- Grand Rounds – Dr. Monte Mythen
- Evidence Base Practice Development
- Practice Evaluation

### COMMUNICATION
- Theme Framework
- Posters
- Internal Website
- Publications
- Padlet
- Team Member Engagement
- Physician Portal / Office Practice Visits

### PATIENT EDUCATION
- Strong Start / Strong Finish
- News Release
- External Website - Baptistjax.com/ERAS
- Public Awareness - radio, print media
FUTURE ENDEAVORS

- Patient Family Advisory Team
- Multimodal Patient Education – Video Tours / Expectations
- Baptist ERAS Ambassadors / Team Member Recognition
- Process Evaluation - 30/60/90 day intensive review
- Surgical Preoptimization / E-pre-op Technology Platform
- Real Time Patient Feedback:
  - PREM - Patient Reported Experience Measures
  - PROM - Patient Reported Outcome Measures
Enhanced Recovery
Enhanced Recovery After Surgery (ERAS)
A patient centered approach to care

PREOP (Strong Start)
- Antibiotic Prophylaxis
- Preadmission Optimization
- Patient & Family ERAS Education
- Solid Foods Up Until 8 Hours Prior To Surgery
- Liquids Up Until 2 Hours Prior To Surgery Arrival Time
- Carb Loading At 2 Hours Prior To Surgery Arrival Time
- Protein Supplementation
- Smoking Cessation
- Antiemetic
- Prophylactic Multimodal Pain Management

surrounding with care

INTRAOP
- Opioid Sparing Multi-Modal Pain Management
- Normoglycemia
- Goal Directed Fluid Management
- Normothermia
- Minimally Invasive Techniques Where Applicable
- Antiemetic

POSTOP (Strong Finish)
- Patient & Family Education
- Early Removal Of Tubes & Drains
- Early Mobilization
- Early Nutrition To Stimulate Motility
- Multimodal Pain Management To Minimize Narcotic Usage
- Movement To Oral Pain Medication
- Decreased Length Of Stay
- Protein Supplementation
Enhanced Recovery (ERAS)
ERAS enables patients to take an active approach to their recovery. This multi-disciplinary approach improves surgery outcomes, reduces complications, and allows patients to be discharged sooner. It is a fast-track-recovery process focused on assisting patients back to or as close to his/her normal function.

Benefits
- Lower morbidity rates
- Accelerated recovery
- Decreases length of stay
- Increases consistency, quality, and patient satisfaction
- Decreases risk for surgical site infection

Patient Resources

Follow these steps for a STRONG START
Enhanced Recovery (ERAS) - Strong Start

Follow these steps for a STRONG FINISH
Enhanced Recovery (ERAS) - Strong Finish

Key Components
- Patient education and involvement
- Multi-disciplinary approach
- Optimized anaesthesia with multimodal approach to pain control
- Less narcotic use
- Early mobilization after surgery
- Carbohydrate loading three hours before surgery

ERAS Research
- Name
  - CARL - Effect of Preoperative Carbohydrate Loading
  - CARL - Role of Preoperative Carbohydrate Loading
  - CARL - Determination and Carbohydrate Loading
  - COLON - Clinical Practice Guidelines for ERAS - Colon and Rectal Surg
  - COLON - Clinical practice guidelines for ERAS (open and rest)
  - GENERAL - Enhanced Recovery After Surgery - Review by JAMA
  - GENERAL - ERAS and FastTrack Surgery Pathways: effect on HMX
  - KPRIME - Kaiser Permanente - Northern California ERAS
  - KPRIME - Restrictive vs. Liberal Fluid Therapy for Major Abdominal Surgery
  - GYN - Implementation and Outcomes of ERAS pathway in GYN Hospital
  - NURSING - The Impact of an Enhanced Recovery Pathway on Nursing Workload
  - NUTRITION - Promoting Preoperative Nutritional and Nutritional Care
  - THORACIC - Local Anaesthetic Techniques in ERAS - Thoracic Surgery
  - UROLOGY - ERAS Protocol - Major Urologic Surgery
  - UROLOGY - Perioperative Care: Cystectomy ERAS

ERAS Resources
Enhanced Recovery After Surgery (ERAS)

Enhanced Recovery After Surgery, or ERAS, is a set of evidence-based protocols that result in improved outcomes for our patients at Baptist Health. Changes in the long-established routines before, during and after surgery are helping people recover faster.

How is ERAS different?
- No fasting the night before surgery
- Patients eat, drink and move as soon as possible after surgery
- Pain management that minimizes narcotic use
- Regional anesthesia and minimally invasive techniques reduce surgery side effects
- Patients return home sooner, with fewer hospital readmissions

Why ERAS?
Since its beginnings in the 1990s in Europe, enhanced recovery has gained momentum and is now becoming the standard of care at medical centers across America. Numerous national and international clinical studies have shown that enhanced recovery after surgery improves patient outcomes, reduces complications and decreases length of hospital stays.

ERAS at Baptist Health
After implementing ERAS protocols at Baptist Health in 2017, we’ve seen improved results in our own patients.

- 25% reduction in length of stay
- 21% reduction in opioid use

*colorectal surgery patients
PATIENT INSTRUCTIONS
PREOP

Enhanced Recovery

Enhanced Recovery After Surgery (ERAS) promotes your participation in a step-by-step plan that helps patients feel better and recover faster. It starts as soon as surgery is scheduled.

Preparing your body for surgery will:
- Reduce nausea/vomiting after surgery
- Reduce pain
- Support good blood sugar levels to fuel recovery
- Promote healing to reduce time in the hospital

Follow these steps for a STRONG START

PACE Appointment Date/Time:
Identify a friend or family member for support:

Before Your Surgery

As soon as your surgery is scheduled  1 day before surgery  The morning of surgery

Medications
Take medications as prescribed.
Take medications as prescribed.
Take medications as directed by your surgeon or as discussed at your PACE appointment, with sips of water.

Diet
Eat a well-balanced diet. Drink plenty of water & fluids. Because protein encourages healing, eat a minimum of 60 grams of protein per day, split between 3 meals. There are about 7 grams of protein in 1 ounce of cooked meat, poultry or seafood. 160 grams should not be in one meal.
If needed, supplement protein from meals with up to 3 protein shakes during the day (Ensure Enlive, Ensure Plus or Boost Plus).

Activity
If you do not regularly exercise, begin walking 15 minutes per day.
Continue your normal activity or walking.

Breathing Exercise
If you received an incentive spirometer prior to surgery, start using it daily, taking 10 deep breaths to exercise your lungs.
Continue to practice incentive spirometer approximately 10 deep breaths, the day before surgery.
Bring your incentive spirometer with you to the hospital, if you received one.

Tobacco or Nicotine Use
If you smoke, vape, or chew tobacco, it is strongly recommended to stop IMMEDIATELY. Tobacco/nicotine use impacts recovery after surgery. It can weaken the immune system, reduce oxygen levels and slow the wound healing process.
Do not smoke/vape/chew at least 24 hours before your surgery.
If you stopped tobacco/nicotine use for surgery, don’t start again after surgery. Your lungs and your body will thank you!

Thank you for preparing for an enhanced recovery as soon as your surgery is scheduled.
We want you to have the best possible surgical experience!
Enhanced Recovery After Surgery (ERAS) guidelines

Follow these steps for a STRONG FINISH

**After Your Surgery — While You’re In The Hospital**

**Medications**

Some pain after surgery is normal. We want to partner with you to manage your pain.

To keep you comfortable, we effectively use non-steroidal anti-inflammatory drugs (ibuprofen/Advil®, Meloxicam, Celecoxib/Celebrex®), or neuromodulators (Suboxone, Prudoxin). We encourage you to take pills by mouth, so you can get off of IV pain medications as quickly as possible.

Enhanced Recovery After Surgery (ERAS) has proven to:

- Effectively manage pain while limiting the use of narcotic painkillers.
- Reduce unwanted side effects including nausea, constipation and swelling.
- Enable patients to move, drink and eat more quickly after surgery.
- Help patients to feel better faster and decrease their time in the hospital.

<table>
<thead>
<tr>
<th>Diet</th>
<th>After surgery</th>
<th>1 day after surgery</th>
<th>2 days after surgery</th>
<th>3–4 days after surgery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drink approved clear liquids. Water, flavored water, apple juice, cranberry juice, black coffee or tea (nothing added). If tolerating clear liquids, begin to eat solid foods. Chew gum 3 times a day for 10 minutes. Don’t swallow gum.</td>
<td>Continue to drink liquids. 1.5 liters of water a day is recommended. Eat solid foods as tolerated. Chow gum 3 times a day, for 10 minutes. Don’t swallow gum.</td>
<td>Continue to chew gum and advance diet as tolerated. Try to eat small, frequent meals for the first week after surgery. Drink lots of fluids, goal is 1.5 liters / day. Because protein encourages healing, eat a minimum of 60 grams of protein per day. (There are about 7 grams of protein in one ounce of cooked meat, poultry or seafood.) If needed, supplement protein from meals with up to 3 protein shakes during the day. (Ensure, Ensure Plus or Boost Plus) to help meet goal of 60 grams throughout day, split between 3 meals.</td>
<td>Stay in your chair more than in bed. Goal is to be out of bed for 3 hours. Walk 3 times, increase to 200 ft. and then 300 ft.</td>
<td>Stay in your chair more than in bed. Goal is to be out of bed for 3 hours. Walk 3 times per day, more than 300 ft.</td>
</tr>
</tbody>
</table>

**Breathing Exercises**

- If you received an incentive spirometer prior to surgery, breathe deeply using spirometer 10 times per hour while awake.
- Inhale deeply using spirometer 10 times per hour while awake.
- Inhale deeply using spirometer 10 times per hour while awake.

Thank you for partnering with us to enhance your recovery. We want you to have the best possible surgical experience!
GOAL DIRECTED FLUID THERAPY

NON-INVASIVE Hemodynamic monitoring

Edwards Lifesciences EV1000

A simple, noninvasive approach to monitoring key hemodynamic parameters.

- Stroke Volume (SV)
- Stroke Volume Variation (SVV)
- Cardiac Output (CO)
- Systemic Vascular Resistance (SVR)
- continuous Blood Pressure (cBP)

Visual clinical support
Advanced hemodynamic parameters are presented in a visually simplified manner. Color-based indicators communicate patient status at a glance, and visual clinical support screens allow for immediate recognition and increased understanding of rapidly changing clinical situations.

The noninvasive ClearSight system provides valuable hemodynamic insight to an expanded patient population, for making more informed decisions about volume administration in moderate to high-risk surgery. Delivering clarity in every moment.

The ClearSight system extends continuous hemodynamic monitoring to a broader patient population, including your moderate to high-risk surgery patients. By leveraging proven cClavén system technology, the ClearSight system provides clinicians clarity without the barriers of complexity or invasiveness.

Simple for clinicians
The ClearSight system quickly connects to the patient by wrapping an inflatable cuff around the finger. The simplicity of the ClearSight system gives you noninvasive access to automatic, up-to-the-minute hemodynamic information for a broader patient population.

Leverages validated technology
Used as the standard for monitoring in space for decades, cClavén noninvasive technology (volume clamp)† Physcion™ has been extensively validated against gold-standard monitoring technologies. Several studies have validated the ability of noninvasive cClavén technology to reliably track continuous blood pressure, absolute cardiac output and continuous cardiac output.†-11

Advanced hemodynamic monitoring extended to moderate-risk patients
The ClearSight system enables you to expand advanced hemodynamic monitoring to your moderate to high-risk surgery patients — including elderly or obese patients†,†‡ — enabling you to make more informed decisions regarding volume administration.
To evaluate Outcomes and Process of ERAS

- 30 / 60 / 90 Intense Review

Clinical Quality Analytics provides patient population data in order to support the system initiative

- Data is provided by the population, facility, and system.

- Data is shared on a monthly basis with the ERAS Planning Committee as well as any quality oversight committees or work groups
## PROCESS MEASURES

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Data Source</th>
<th>30 Days Post</th>
<th>60 Days Post</th>
<th>90 Days Post</th>
<th>Ongoing</th>
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</thead>
<tbody>
<tr>
<td>Power Plan Usage (revised with ERAS modifications)</td>
<td>Cerner</td>
<td>All</td>
<td>All</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>Clear Liquids 3 Hours Before Induction (Pre-Op)</td>
<td>Chart Review</td>
<td>All</td>
<td>Sample-Facility</td>
<td>Sample-System</td>
<td>Cerner Report</td>
</tr>
<tr>
<td>Goal Directed Therapy (Intra-Op)</td>
<td>Chart Review</td>
<td>All</td>
<td>Sample-Facility</td>
<td>Sample-System</td>
<td>No</td>
</tr>
<tr>
<td>Mobility POD 1 (Post-Op)</td>
<td>Chart review</td>
<td>All</td>
<td>Sample-Facility</td>
<td>Sample-System</td>
<td>Cerner Report</td>
</tr>
<tr>
<td>Solids Given POD 1 (Post-Op)</td>
<td>Chart Review</td>
<td>All</td>
<td>Sample-Facility</td>
<td>Sample-System</td>
<td>No</td>
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<tr>
<td>PO Pain Meds POD 1 (Post-Op)</td>
<td>Chart Review</td>
<td>All</td>
<td>Sample-Facility</td>
<td>Sample-System</td>
<td>Cerner Report</td>
</tr>
<tr>
<td>Bowel Function POD 2 (Post-Op)</td>
<td>Chart Review</td>
<td>All</td>
<td>Sample-Facility</td>
<td>Sample-System</td>
<td>No</td>
</tr>
<tr>
<td>Return to Surgery (same inpatient encounter)</td>
<td>Chart Review</td>
<td>All</td>
<td>Sample-Facility</td>
<td>Sample-System</td>
<td>No</td>
</tr>
</tbody>
</table>
Colon ERAS Outcomes

Pre-ERAS: Jan-Mar 2018. Post-ERAS: Dec18-May19. Outcomes are percentage. LOS is days IBM Watson Care Discovery used for Risk-Adjusted metrics and benchmark.
Pre-ERAS: Jan-Mar 2018. Post-ERAS: Dec18-May19. Outcomes are percentage. LOS is days IBM Watson Care Discovery used for Risk-Adjusted metrics and benchmark.
### Gyn Oncology ERAS Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Mortality</th>
<th>Readmissions</th>
<th>Complications</th>
<th>Length of Stay</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-ERAS, N=72</strong></td>
<td>0.0</td>
<td>4.2</td>
<td>0.0</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Post-ERAS, N=164</strong></td>
<td>1.2</td>
<td>3.7</td>
<td>2.4</td>
<td>2.3</td>
</tr>
<tr>
<td>50th %ile</td>
<td>0.3</td>
<td>3.6</td>
<td>2.8</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Pre-ERAS: Jan-Mar 2018. Post-ERAS: Dec18-May19. Outcomes are percentage. LOS is days IBM Watson Care Discovery used for Risk-Adjusted metrics and benchmark.

- **Pre-ERAS Cost:** $11,484
- **Post-ERAS Cost:** $11,311
- **50th %ile Cost:** $11,274
- **Total Cost Savings:** $28,372 (Pre to Post cost x case volume)
## Thoracic ERAS Outcomes

Pre-ERAS: Jan-Mar 2018. Post-ERAS: Apr19-May19. Outcomes are percentage. LOS is days IBM Watson Care Discovery used for Risk-Adjusted metrics and benchmark.

<table>
<thead>
<tr>
<th>Mortality</th>
<th>Readmissions</th>
<th>Complications</th>
<th>Length of Stay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-ERAS, N=15</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Post-ERAS, N=14</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>50th %ile</td>
<td>0.6</td>
<td>0.4</td>
<td>0.7</td>
</tr>
</tbody>
</table>

- Pre-ERAS Cost: $21,361
- Post-ERAS Cost: $17,800
- 50th %ile Cost: $18,999
- Total Cost Savings: $49,854
  (Pre to Post cost x case volume)
# Care Discovery ERAS Cost Outcomes

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Pre-ERAS: Jan-Mar 2018</th>
<th>Post-ERAS Dec 2018-May 2019</th>
<th>Care Discovery 50th %ile</th>
<th>Cost Savings from Pre-ERAS to Post-ERAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colon</td>
<td>$24,649</td>
<td>$22,351</td>
<td>$18,526</td>
<td>$397,554</td>
</tr>
<tr>
<td>Urology</td>
<td>$17,551</td>
<td>$14,892</td>
<td>$13,580</td>
<td>$223,356</td>
</tr>
<tr>
<td>Gyn Onc</td>
<td>$11,484</td>
<td>$11,311</td>
<td>$11,274</td>
<td>$28,372</td>
</tr>
<tr>
<td>Thoracic</td>
<td>$21,361</td>
<td>$17,800 (Apr-May 2019)</td>
<td>$18,999</td>
<td>$49,854</td>
</tr>
</tbody>
</table>

Cost (Based on Cost to Charge Ratio) through Truven CareDiscovery using Charge Master hospital information and national MedPar data to adjust for variations.
THANK YOU

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REFERENCES


Ascension St. Vincent’s
Journey to Enhanced Recovery after Surgery

Presented by
Melissa DiSciascio, MSN, RN
System Quality Manager
Karen Grimes, BSN, RN
PAT/PACU Manager
About Us

• Ascension St. Vincent’s Health Care
  • 3 Acute Care Facilities
    • St. Vincent’s Riverside is a 528 bed acute care facility with an annual surgical volume of ~15,000
    • St. Vincent’s Southside is a 309 bed acute care facility with an annual surgical volume of ~7,300
    • St. Vincent’s Clay is a 106 bed acute care facility with an annual surgical volume of ~4,300
  • 42 Specialty Sites of Care
  • 32 Primary Sites of Care
  • 9 Urgent Sites of Care
What is ERAS?

• Enhanced Recovery After Surgery is a multimodal perioperative pathway or a set standardized protocols designed to optimize patient recovery during the preoperative, intraoperative and postoperative phases of care.

• Re-examines traditional practices, replacing them with evidenced based, best practices
Key Preoperative Components

• Comprehensive preoperative education & counseling, conditioning, readiness and preparation
  • Explanation of hospitalization
  • Testing/ labs
  • Nutritional assessment
  • PONV scoring
  • Exercise monitoring
  • Mobilization targets
  • Smoking cessation/’fast’
  • Alcohol cessation
  • Pain management
Key Perioperative Components

• Intraoperative efficiency
  • Metabolic/fluid conditioning
  • Prevention of postop ileus
  • Antiemetic prophylaxis
  • Mechanical bowel prep with antibiotics (colectomy cases)
  • Fluid management
  • VTE prophylaxis
  • Antimicrobial prophylaxis
  • Skin prep
  • Maintenance of normothermia
  • BP and glucose maintenance
  • Multimodal pain management
Key Postoperative Components

• Post operative interventions
  • Early mobilization
  • Antiemetic prophylaxis
  • Early removal of urinary catheters
  • Early removal of wound drains
  • Glucose control
  • Multimodal pain management
  • Patient feedback
  • Outcomes reporting and analysis
# Potential Benefits

<table>
<thead>
<tr>
<th>Patient Outcomes</th>
<th>Patient Experience</th>
<th>Your Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortened length of stays (LOS)</td>
<td><em>Better-prepared for surgery</em></td>
<td>Improved efficiency on nursing workflow <em>(due to increased patient engagement)</em></td>
</tr>
<tr>
<td>NO increase in readmissions</td>
<td><em>Anxiety reduction</em> with better confidence in good outcomes*</td>
<td>Improved public reporting</td>
</tr>
<tr>
<td>Accelerated return to normal</td>
<td><em>The surgery and hospitalization went according to plan</em></td>
<td>Increased reimbursement and shared savings</td>
</tr>
<tr>
<td>activities</td>
<td><em>Ready for discharge</em></td>
<td></td>
</tr>
<tr>
<td>Decreased morbidities</td>
<td><em>They were likely to recommend</em></td>
<td></td>
</tr>
</tbody>
</table>

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**Better Patient Outcomes**

**Better Patient Satisfaction**

**Overall Cost Savings**
Journey to Implementation

Identify CHAMPIONS

- Must be engaged and buy in to the process
- Must commit to the time
- Must be a strong cheerleader for change
Journey to Implementation

Map the workflow

• Go to GEMBA
• See and understand the current workflow of the team
• Identify and address any barriers, ex. Availability of medications, equipment, EMR limitations, physical location
Implementation @ Ascension St. Vincent’s Southside

- Evidence based protocol developed
- Comprehensive review of PAT/Pre Op/Post Op PowerPlans
  - Creation of ERAS orders (sub-phase) added to GI, General & GYN order sets for pilot
- Patient education developed
  - Engaged our Patient & Family Advisory Committee for feedback
- Nursing/caregiver education developed and provided to all PAT, PACU, OR and Floor Staff
- Provider/scheduler education
  - Face to Face
# ERAS Protocol

## Pro-admission Testing

- In addition to the Preoperative Testing Protocol, RN will perform and document the following in the Electronic Medical Record:
  - Carb Loading Drink:
    - Provide patient with carbohydrate drink (Ensure High Calorie) and instruct patient to consume two (2) hours prior to the scheduled surgery start.
  - Bathing:
    - Instruct patient to shower using Hibiclens right prior to surgery.
  - Booklet/Education:
    - Review ERAS booklet with patient. If patient did not bring copy given at surgeon’s office, provide them with one.
  - Educate patient about incentive spirometer use.
  - Bowel Prep:
    - Educate patient on bowel prep if ordered by the surgeon.

## Pre-Op Holding

- In addition to the Outpatient/AM Admission Pre-op protocol and Pre-operative/Pre-procedural nursing assessment of patient, RN will perform and document the following in the Electronic Medical Record:
  - Carb Load beverage consumed two (2) hours prior to scheduled surgery.
  - Bowel Prep completed if ordered by surgeon.
  - Pre-warm with Soft Paws gown and educate regarding importance of pre-warming.
  - Validate pre-op antibiotics ordered (On Call to OR).
  - Administer ordered pre-operative pain medication before leaving pre-op (one hour prior to scheduled surgery time).
  - CHG wipes used before surgery.

## OR

- In addition to the Patient Care: Admission Criteria for the OR, RN will perform and document the following:
  - Pre-warming.
  - CHG wipes.
  - Carbohydrate drink.
  - Bowel Prep (if ordered).
  - Colon Closure Protocol (if colon procedure).
  - Verify pre-op RN gave ordered pre-operative pain medication before leaving pre-op.
  - Verify pre-op Antibiotics (MD Preference) within one (1) hour of incision.

## PACU

- In addition to the PACU Plan of Care for the PACU Phase I Patient, 16.00, the PACU RN will perform and document the following in the Electronic Medical Record:
  - Post-op Anesthesia Orders.
  - Non-narcotic pain medications.
  - See electronic orders for multimodal pain management.
  - Limit IV fluids, as patient’s condition allows.
  - Foley or NG Tube.
  - If still in place, check for order or get clarification from surgeon for removal.

## Food & Fluids

- Patient may have clear liquids (i.e., Gatorade, Powerade) immediately in PACU. Document in AQL Nutrition in view.
  - Incentive Spirometer.
    - 10 breaths every hour. Document incentive spirometer use.

## Floor In-patient

- In addition to Post Procedure Care, RN 4.21, the receiving RN will perform and document the following interventions in the Electronic Medical Record:
  - Post-op Floor Orders.
  - Initiate SURF ERAS Post Op orders.
  - Validate SURF Infusion orders are present.
  - Nausea Control.
    - Non-narcotic pain and nausea medications as ordered/scheduled.
  - Infusion Randall/Shill Change.
    - Document hand off ERAS infusions in I view.

## Activity

- **Post-op Day 0**
  - Instruct patient to sit at side of bed _ hours after surgery.
  - Instruct patient to stand at side of bed and walk in place _ hours after surgery.
  - **Post-op Day 1**
    - Instruct patient OOB to chair with every meal.
    - Instruct patient to walk in the hall at least 4 times today.
  - **Post-op Day 2**
    - Instruct patient to get OOB to chair with every meal.
    - Instruct patient to walk in the hall at least 4 times, increased distances.
  - **Post-op Days 3-4**
    - Instruct patient OOB to chair with every meal.
    - Daily shower.
    - Instruct patient to walk in the hall at least 4 times, increased distances.
    - Increase activity and self-care.

## Diet

- Low fat/low fiber diet, or as patient tolerates.
  - Have patient begin eating some food to help with return of bowel function.

---

*Ascension*
ENHANCED RECOVERY AFTER SURGERY

Enhanced Recovery After Surgery (ERAS) is a multifaceted, evidence-based perioperative care pathway. ERAS facilitates faster postoperative recovery by decreasing the stress response and maintaining pre-operative physiologic function without compromising surgical outcomes. Surgeons outside of colorectal surgery are adopting ERAS principles to their own specialty practice because of a significant body of evidence demonstrating improved patient outcomes.

Key patient outcomes of the ERAS bundle include:
- Multi-modal pain control – improved patient pain scores
- Eating and walking sooner after surgery
- Reduced surgical complications
- Healing more quickly – reduced length of stay on average by 2 days (for colorectal surgeries)
- Returning home more quickly – improved patient satisfaction

ERAS BUNDLE REPRESENTS A PARADIGM SHIFT IN PERIOPERATIVE CARE

ERAS: Pre-surgery/Intra-operative
ERAS involves a pre-surgery/intra-operative process that optimizes surgical outcomes:
- Pre-operative information/patient education
- Skin preparation: antimicrobial soap/wipes
- Carb loading beverage 2 hours prior to surgery
- Modified bowel preparation (for colorectal surgeries)
- Correcting nutritional defects with dietician recommendations
- Goal-directed fluid therapy management in the OR
- Multi-modal pain control
- Nausea and ileus prevention

ERAS: After Surgery
Patients will begin to eat and walk within hours after surgery. The medical team will control patient pain and nausea to enhance their recovery. Patients will have clear expectations, education, and be a key part of driving their care and recovery.

Evidence-based order sets are customizable for your patient, and can be found as a SubPhase in the GEN, GI, and GYN surgical PowerPlants:
- Enhanced Recovery After Surgery (ERAS) PAT
- Enhanced Recovery After Surgery (ERAS) Pre-Op
- Enhanced Recovery After Surgery (ERAS) Post-Op

For more information or with help ordering, contact Karen Grimes, PACU Manager or Dr. Conde, Anesthesia Champion
Patient Education

Preparing for your surgery
Exercise and being active will help prepare your body to be as fit as possible before surgery. If you are already on an exercise program or are active, keep up the great work! If not, then start slowly by adding exercise or activity into your daily routine:

- Exercise does not need to be strenuous to be helpful. A 15-minute walk is better than not exercising at all.
- Staying active will help strengthen your heart, decrease stress and improve sleep.
- Pace yourself with activities, taking breaks as needed.
- Organize your daily activities and get into a routine. Identify the best time of day for each activity.
- Think through how you can save your energy with everyday tasks (i.e., sitting vs. standing, slide objects vs. lifting, and delegating tasks to others).
- Exercise helps boost energy levels, which may allow for more activities without feeling tired or short of breath.
- Don’t hold your breath while exercising. You should be able to talk while feeling slightly breathless when exercising.
- Knowing when to stop exercising is important. Stop at the first sign of chest pain, heart racing, trouble catching your breath, dizziness or extreme tiredness.

Stopping smoking at least four weeks before your surgery is very important. This will reduce the risk of serious lung complications that you could experience during and after surgery as well as throughout your healing process. Smoking has been associated with poor healing after surgery. Discuss with your doctor about possible medications that can help you stop smoking.

Limit alcohol intake four weeks before surgery. Alcohol can interact with some medications that you will receive in the hospital. Please let us know if you need help in decreasing alcohol intake before surgery.

Plan ahead for transportation home from the hospital or tell your nurse if you have concerns about going home. You may also need help from family or friends with preparing meals, laundry, bathing or cleaning when you go home.

Surgery can be stressful for patients and their families. We are here to support you and your family along the way. Please ask us at any time if you have questions about your care.

What is Enhanced Recovery After Surgery?
Enhanced Recovery After Surgery (ERAS) is a care plan that was made for you by your St. Vincent’s surgery and anesthesia teams. This care plan helps to prepare your body for surgery, recover safely and return home as soon as possible after your surgery.

Why do we use the ERAS care plan?
The ERAS care plan helps you recover quickly and lowers the chances of you having any problems after your surgery. This pathway helps you and your team work together to:

- Keep your hospital stay short
- Keep your pain level under control
- Help you get out of bed and walk within 24 hours
- Allow you to eat and drink as soon as it is safe for you
- Listen to your concerns and explain things clearly
- Make sure you are happy with your care at St. Vincent’s
Patient Education

Eating and drinking
The day before surgery:

If you are taking a bowel prep:

- You will be instructed by your physician when to stop eating
- Take your bowel prep as instructed
- Your physician will supply detailed instructions

If you are not taking a bowel prep:

- Eat and drink normally until midnight
- After midnight, do not have any food, dairy products, or juice with pulp

The morning of surgery:

- Do not eat any food
- You may continue to drink liquids (nothing dairy or juice with pulp) up to 2 hours before your scheduled surgery time.
- Finish the provided carbohydrate drink, Ensure Pre-surgery, 2 hours before your scheduled surgery time. This should be consumed quickly (in less than 5 minutes, rather than sipped over time).

Pain control

While you will experience some pain after surgery, our goal is to keep you comfortable. With the ERAS care plan, the hospital staff will limit the use of narcotics, while using other forms of pain medication and methods to control your pain. You and your nurse will work together, to keep you comfortable and your pain controlled, so that you will be able to do the following:

- Take deep breaths and use an incentive spirometer, to keep your lungs healthy
- Move and walk easily, to increase normal bowel function
- Drink liquids, as well as protein drinks, to increase normal bowel function and healing
- Begin to eat solid food
- Sleep better, to help you heal
- Do the things that are important to you

Your nurse will frequently ask you to describe your pain on a scale of 0 to 10 (0 being no pain and 10 being the worst pain you can imagine). Although you will experience some pain, we want to keep your pain tolerable. We will work with you to find a pain goal that will allow you to walk, take deep breaths, eat and sleep well. Please let your nurse know if you are experiencing any pain.
# ERAS Metrics and Outcomes

<table>
<thead>
<tr>
<th>Metric Name</th>
<th>Metric Description</th>
<th>Data Source</th>
<th>Measurement Frequency/Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOS</td>
<td>Project should show decrease in length of stay.</td>
<td>CERNER</td>
<td>Monthly</td>
</tr>
<tr>
<td>Re-Admission</td>
<td>No increase in re-admission</td>
<td>CERNER</td>
<td>Monthly</td>
</tr>
<tr>
<td>Complications</td>
<td>Decrease in complications</td>
<td></td>
<td>Monthly</td>
</tr>
<tr>
<td>Intra-Op Temp</td>
<td>Maintain greater than 36 Celsius during surgery</td>
<td>Manual</td>
<td>Monthly</td>
</tr>
<tr>
<td>Pain Scores</td>
<td>Average daily pain scores: Post op day 1, 2, 3, and 4</td>
<td>CERNER</td>
<td>Monthly</td>
</tr>
<tr>
<td>Mobility</td>
<td>Early mobilization of patient. Percent of patients mobile 6-8 hours post-op</td>
<td>Manual</td>
<td>Monthly</td>
</tr>
<tr>
<td>Oral Intake</td>
<td>Oral intake post op day 0 with regular diet post op day 1.</td>
<td>Manual</td>
<td>Monthly</td>
</tr>
<tr>
<td>Cost per Case</td>
<td>Decrease in cost per case</td>
<td>Finance</td>
<td>Monthly</td>
</tr>
<tr>
<td>Patient Satisfaction</td>
<td>Increase patient satisfaction secondary to better communication, education, and decreased LOS</td>
<td>PFE</td>
<td>Monthly</td>
</tr>
<tr>
<td>Pre-op Education</td>
<td>Pre-op education complete. Was education on ERAS complete during PAT visit?</td>
<td>Manual</td>
<td>Monthly</td>
</tr>
<tr>
<td>Narcotic Usage</td>
<td>Units of morphine utilized intra-op. Units of morphine utilized Post Op day 1, 2, 3, and 4. (all narcotics need to be converted to units of morphine.)</td>
<td>CERNER/Manual</td>
<td>Monthly</td>
</tr>
<tr>
<td>Carbohydrate loading beverage drank pre-operatively</td>
<td>Did patient drink the supplied carb-loading beverage 2 hours prior to surgery</td>
<td>Manual</td>
<td>Monthly</td>
</tr>
<tr>
<td>Post Op Nausea and vomiting</td>
<td>Number of PRN antiemetic doses used post op</td>
<td>Manual</td>
<td>Monthly</td>
</tr>
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</table>
Average Post op LOS in Hours

<table>
<thead>
<tr>
<th></th>
<th>Avg Post-Op LOS (hours)</th>
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<tbody>
<tr>
<td>ERAS</td>
<td>32.31</td>
</tr>
<tr>
<td>Control</td>
<td>36.45</td>
</tr>
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</table>
PAT Education/CARB Drink

**In Person PAT**

<table>
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<tr>
<th></th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>PAT</td>
<td>97%</td>
<td>3%</td>
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**Carbohydrate Drink Consumed 2 hour Pre Operatively**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>Drink</td>
<td>83.60%</td>
<td>16.40%</td>
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PRE Op Meds Administered

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>Percent</td>
<td>83.60%</td>
<td>16.40%</td>
</tr>
</tbody>
</table>
Ketamine and Lidocaine Infusions

- **Ketamine Infusions**
  - OR Only: 23.9
  - Floor Only: 1.5
  - OR and Floor: 58.2
  - None: 16.4

- **Lidocaine Infusions**
  - OR Only: 33.3
  - Floor Only: 1.5
  - OR and Floor: 57.6
  - None: 7.6
Pain Scores and Equivalent Narcotic Dosages

### Average Pain Score

<table>
<thead>
<tr>
<th></th>
<th>ERAS</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>4.18</td>
<td>5</td>
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</table>

### Equivalent Daily Narcotic Dosage

<table>
<thead>
<tr>
<th></th>
<th>ERAS</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dosage</td>
<td>32.53</td>
<td>35.29</td>
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</tbody>
</table>
Next Steps

• Expand to all services lines at Southside
• Clay ERAS kick off 8/11/19
  • Anticipated GO LIVE 10/2019
• Riverside ERAS Kick Off 1/2020
  • Anticipated GO LIVE 3/2020
• Enhanced Recovery After Cardiac Surgery pilot underway
• Refine metrics and data collection
Presenter Information

Melissa DiSciascio, MSN, RN
System Quality Manager
Melissa.DiSciascio@Ascension.org
904-308-5373

Karen Grimes, BSN, RN, CPAN
Nurse Manager, PAT, Preop Holding, PACU and Endoscopy
Karen.Grimes@Ascension.org
904-296-4190
Thank you. Questions?
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Details</th>
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<tbody>
<tr>
<td>Aug. 15</td>
<td>Readmissions Forum II – Central FL (In-Person)</td>
<td>FHA Corporate Office - Orlando, FL</td>
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<tr>
<td>Aug. 27</td>
<td>Infection Prevention Series: IVAC/PVAP (Webinar)</td>
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<td>Sep. 4</td>
<td>Monthly Quality Hot Topics #10 (Webinar)</td>
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<td>Sep. 10</td>
<td>Tobacco Free Florida: Developing an eReferral Program at Florida Hospitals (Webinar)</td>
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</tr>
</tbody>
</table>

Check your *HIIN Mission to Care Newsletter* Weekly Email for details and registration
Upcoming Events – Save the Dates

- **Regional Meetings- Patient Harm topics** *(Registration Coming Soon)*
  - North FL – Sep. 24, Baptist Medical Center South, Jacksonville
  - Southeast FL – Sep. 30, Memorial Regional Hospital, Hollywood
  - Central FL – Oct. 3, FHA Corporate Office, Orlando
  - Panhandle – Oct. 10, Sacred Heart Hospital, Pensacola
  - Southwest FL (date & location TBA)

- **Skill Building workshops**
  - Infection Bootcamp II – November 7 – 8
  - Infection Bootcamp I – Jan-Feb TBA
  - Quality 101 – Jan-Feb

- **Regional Readmissions Forums (Jan-Feb)**

- **VAE – Statewide Convening**

Check your *HIIN Mission to Care Newsletter* Weekly Email for details and registration
Florida Hospital Association

2019 ANNUAL MEETING

OCTOBER 23-25
HYATT REGENCY GRAND CYPRESS
ORLANDO

OPENING KEYNOTE
William H. McRaven, USN (Ret.),
University of Texas System Chancellor and Retired U.S. Navy Four-Star Admiral

CLOSING KEYNOTE
Doris Kearns Goodwin,
Presidential Historian and Pulitzer Prize-Winning Author

Register today:
www.FHAAnnualMeeting.com
Questions?
Contact Us: HIIN@fha.org | Phone: 407-841-6230

• Kim Streit, FACHE, MBA, MHS
  Senior Vice President

• Phyllis Byles, RN, BSN, MHSM, BC-NEA
  Clinical Performance Improvement Advisor

• Dianne Cosgrove, MS, RN, CPHQ, LHRM
  Director of Clinical Quality Improvement

• Cheryl D. Love, RN, BSN, BS-HCA, MBA, CPHRM
  Director of Quality and Patient Safety

• Debbie Hegarty
  Manager of Surveys & Special Projects / Data Support

• Luanne MacNeill
  Quality Initiatives Coordinator / HIIN Communications
Thank You

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