

Changing Health Care for Good.

ERAS in a Nutshell (Enhanced Recovery After Surgery)

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Abstract

Enhanced Recovery After Surgery (ERAS) is an evidence-based interdisciplinary care delivery model that focuses on quickly moving the evidence developed from surgical research to bedside patient care, making a more immediate positive impact on patient recovery. This poster presents a high level overview

- The definition of ERAS,
- Components and Benefits of ERAS, and
- Why Clinical Informatics is the perfect medium for implementing ERAS.

Definition of ERAS

ERAS is designed to

- reduce perioperative stress,
- maintain postoperative physiological function, and
- accelerate recovery after surgery.

(Gustafsson, et al., 2019)

The key **elements of ERAS** protocols include:

- preoperative counseling,
- optimization of nutrition,
- Standardization of analgesic and anesthetic regimens, and
- early mobilization.

(Melnyk, Casey, Black, & Koupparis, 2011)

The **goals of ERAS** protocols include:

- reducing the surgical stress response, and
- decreasing organ dysfunction in the postoperative period

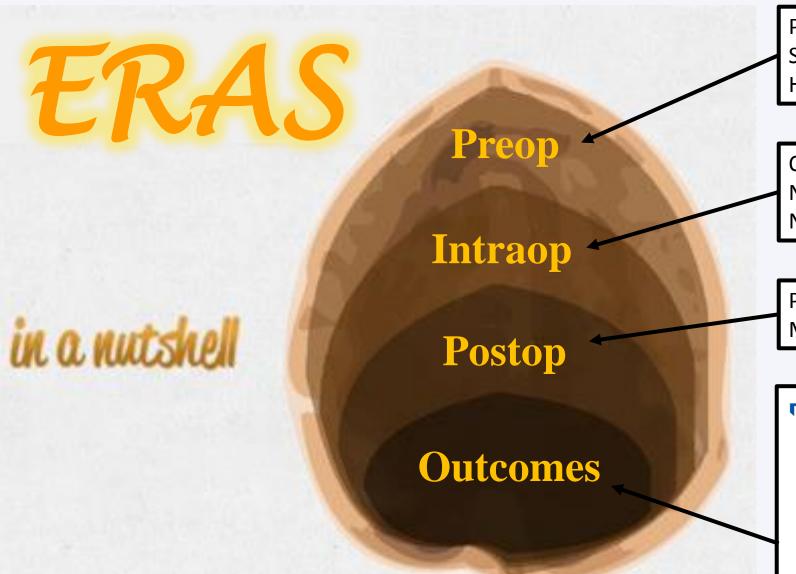
through integrated preoperative, intraoperative, and postoperative pathways.

(Ricciardi, MacKay, & Joshi, 2017)

Benefits of ERAS

- Decreased trauma to affected organs
- Fewer complications
- Shorter recovery time
- Decreased length of stay
- Reduced opiate use

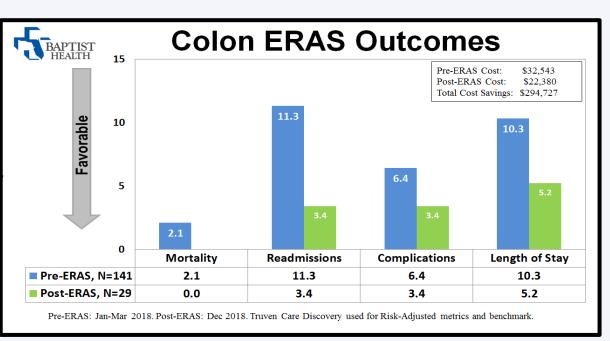
Components of ERAS at Baptist Health



Preadmission Optimization, Patient and Family Education, Smoking Cessation, Antibiotic Prophylaxis, Antiemetics, High Protein Diet, Carb Load, NPO 3 hours before surgery

Opioid Sparing Multi-Modal Pain Management, Normoglycemia, Goal-Directed Fluid Management, Normothermia

Patient Education, Early Mobilization, Early Oral Intake, Multi-Modal Pain Management, Limited/No Opioids



Clinical Decision Support Driven Order Sets

Required Fields to drive compliance

ANES Anesthesia Pre-Op Inpatient Physician Orders DIET SUBPHASES (Planned Pending)

Evidence-Based best practice was driven through careful design of the order sets. Examples of the Clinical Decision Support include:

Linking Orders to facilitate appropriate ordering

T;N, Select this order to get both the Clear Liquid Diet and NPO, and to set the start time for the

1 unit PO ONCE, Clinical Instructions: To be administered over 10 minutes. NPO order will auto

SubPhases to assist with proper workflow

• Required Fields to Drive Compliance

Return | The plan component linking rule is satisfied, rders DIET SUBPHASES

😵 🖶 ADD-On Surgery Diet

Inpatient Surgery (Scheduled) Diet

Diet Message

Diet Message

Diet Message

Notifications:

△ Diet

- Linked Orders to Facilitate Appropriate Ordering
- Creation of Grouped Orders, Subphases, to Assist with Proper Workflow

ANES Anesthesia Pre-Op Inpatient Physician Orders DIFT SURPHASES ADD-On Surgery Diet (Planned Pending)

- Categorization of Orders into Groups to Assist with Consistent Ordering
- Logic Rules Working Behind the Scenes to Assist with Workflow
- Defaulted Values to Drive Recommended Best Practice

Behind the scenes rules to automatically Grouping of orders generate the NPO order 3 hours before surgery If patient on beta blocker prior to admission, give dose at 5 A chlorhexidine topical (chlorhexidine 0.12% oral rinse) Perform oral care the morning of surgery in Holding. Administration Note: Brush teeth, swish and spit oral rinse. See ANTIBIOTICS below for appropriate weight based dose Communication Order Send all antibiotics to OR: to be started in OR If patient weight is less than or equal to 120 kg q inj IV PUSH PRE-OP, Infuse over: 30 min, Clinical Instructions: If patient weight is less than or equal to 120 kg. TO BE ADMINISTERED IN OR-SEND WITH PATIENT. Administer via slow IV push over 3 minutes. Reconstitute each 1g vial wi 🗳 If patient weight is GREATER THAN or EQUAL TO 100 kg 1.5 g bag IVPB PRE-OP, Infuse over: 90 min, Clinical Instructions: If patient weight is GREATER THAN or EQUAL TO 100 kg. Infu 🗳 If patient weight is GREATER than 150 kg, consult pharmacy Consult Pharmacy heparin (heparin (subcutaneous)) 1000 mg cap PO PRE-OP, Clir 200 mg cap PO PRE-OP celecoxib 300 mg cap PO PRE-OP

Clinical Informatics Involvement

Service Line Selection

- Analysis of Physician Favorite Order Sets to Determine Variance in Clinical Practice
- Physician Specific Outcomes to Determine Effectiveness of Treatment
- Wide Clinical Practice Variations + Poor Physician Outcomes = Perfect Service Line to Implement ERAS

Standardized Service Line ERAS Order Sets

- Interdisciplinary Meetings to Determine Evidence-Based Content Lead by Clinical Informatics
- Information Services (Pharmacy, Laboratory, and Radiology) Collaboration with Clinical Informatics to ensure that orders flow smoothly through the system.
- Clinical Decision Support Driven through Order Set Build

Implementation Support

- Analysis of Saved Physician Favorites with Targeted Education at the Provider Level
- Lenient Adoption Period- Providers have 1 month to Adopt New Order Set
- Clinical Informatics Support Specialist Elbow Support for Providers Struggling with Adoption



Defaulted values in order sentences to

capture recommended best practices

Clinical Interdisciplinary Team



Departments Represented in Clinical Interdisciplinary Team:

- Quality Surgery
- Anesthesiology
- Nursing
- Clinical Informatics
- Pharmacy

- Performance Improvement Dietary
- Analytics
- Respiratory
- Information Services
- Education



Bonding over Nuts and Hockey

Contact Information

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References

Gustafsson, U.O., Scott, M.J., Hubner, M. et al. (2019). Guidelines for perioperative care in elective colorectal surgery: enhanced recovery after surgery (ERAS) society recommendations: 2018. World J Surg. (43), 659-695. doi:10.1007/s00268-018-4844-y

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Ricciardi, R., MacKay, G., Joshi, G.P. (2017). Enhanced recovery after colorectal surgery. In Martin Weiser (Ed.), *UpToDate*. Retrieved March 27, 2019, from

<u>/www.uptodate.com/contents/enhanced-recovery-after-colorectal-surgery</u>

- Lower overall cost of surgery and recovery
- Improved nutritional status