

CENTER FOR THE SCIENCE OF HEALTH CARE DELIVERY

Enhanced Recovery Pathways: Why It Matters

Robert R. Cima, MD, MA, FACS, FASCRS
Professor of Surgery, Mayo Clinic College of Medicine
Medical Director, Surgical Outcomes Program

## **Enhanced Recovery Pathways (ERP)**

- ➤ Bundling of evidence based care elements across the *entire* surgical episode
- ➤ Goal of ERP programs
  - Minimize the physiologic derangement induced by anesthesia and surgery
  - Accelerate the patient's physiologic recovery so they meet all discharge criteria
  - Maintain patient safety, surgical quality metrics and minimizing readmissions



#### Is ERP More Than Just Best Practices?

- Health care delivery is a complex system
  - Multiple transitions of care
  - Multiple providers
  - Multiple sequence dependent processes
    - Delays or disruptions in sequence steps interfere with the timely completion of the process
- Improving the output of any complex system requires control of as many system elements as possible



# System Improvement I

➤ The primary goal of any system improvement project is to REDUCE VARIATION in the process



#### System Improvement II

- ➤ Health care systems are not just PROCESSES
- There are numerous people involved
- System improvement requires that the personnel involved in the process
  - > Share a mental model of the entire process
  - Actions are coordinated to achieve a consistent outcome



## **Enhanced Recovery Programs**

- Success is not just the result of a "bunch" of best practices put on a list
- >Success results from the merger of
  - Best practices to minimize physiologic disruption to the surgical patient
  - Aligning all stakeholder's mental models and actions
    - Patients and families
    - > Surgeon
    - Nursing professionals
    - Pharmacy professionals
  - Implementing and monitoring a system that ensures that all (nearly) elements are done every time for every patient





#### What ERP Programs Do

- ➤ Literature across multiple surgical specialties
  - Demonstrate increased compliance with evidence based best practices
  - Decrease in numerous hospital acquired conditions
    - > VTE
    - > Pulmonary complications
    - > UTIs
  - Improvement in certain aspects of patient experience
  - No increase in post-operative complications or readmissions
  - Decreased length of hospital stay





## Is Length of Stay Reduction Important?

- Highly efficient and effective systems optimize:
  - People, Information, Materials, and Time
  - Eliminating all waste improves performance and reduces total cost
- ➤ In a hospital, LOS is one of the best surrogates of financial performance
  - ERP for esophagectomy (Br J Surg 2013;100:1326)
    - LOS reduced by 2 days
    - ➤ Overall cost saving per patient €2013
- ➤ In DRG based (ie Medicare) or bundled payment schemes LOS becomes a critical determinant of institutional financial success





#### **Summary**

- ERP programs are a holistic approach to the care of the surgical patient
  - Designed across the episode of care
  - Designed to minimize the physiologic stress of surgery
  - Designed to include "best" practices for:
    - Surgical outcomes
    - Patient safety
    - Resource utilization
- Success requires broad staff engagement, monitoring of element compliance, and constant feedback of performance
- ➤ ERP programs clinically benefit the patient and are associated with decreased LOS which directly translates into improved institutional financial performance



