

# Enhanced Recovery Protocols for Colorectal Surgery



# Overview

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- Why focus on colorectal surgery?
- Brief overview of enhanced recovery protocols
  - Components of protocol
  - Challenges to implementation
- How SCW can help
- Small group exercise and action plan

# How familiar are you with enhanced recovery protocols for colorectal surgery?

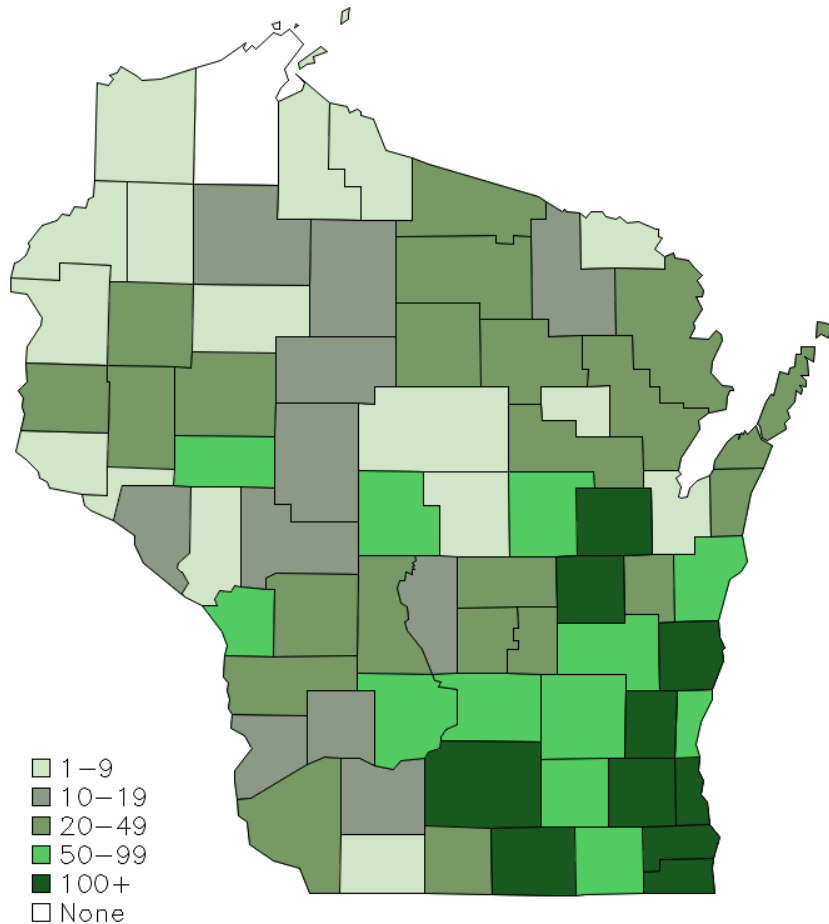
- A. Not at all familiar
- B. Slightly familiar – I have heard of enhanced recovery, but don't know much about it
- C. Somewhat familiar – I know the basics of enhanced recovery, but not the details
- D. Very familiar

# Does your hospital currently have an enhanced recovery protocol for colorectal surgery?

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- A. No
- B. Yes, but it has not been implemented yet
- C. Yes, but it could be improved and/or updated
- D. Yes, fully implemented with high compliance

# Why focus on colorectal surgery?



- Commonly performed
  - In 2016, 75 hospitals in WI performed  $\geq 10$  colectomies
- High complication rates
  - Overall complications ~26%
  - Median LOS 5.9 days (Wisconsin hospitals)
- Resource intensive

# What are enhanced recovery protocols?

- Multidisciplinary, evidence-based clinical pathways
- Components span all aspects of perioperative care
- Specific protocols vary – hospitals can adapt to fit their practice environment and patient population

Patient &  
Family  
Engagement



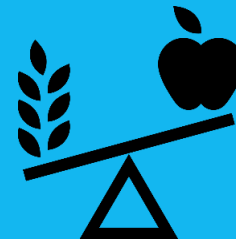
Mobility



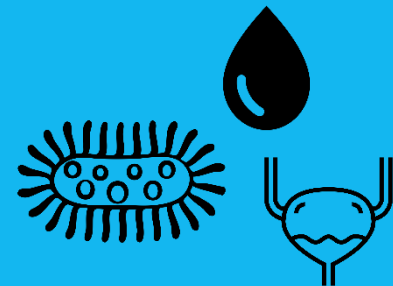
Multimodal  
Analgesia



Optimal  
Nutrition



Evidence-based  
SSI, VTE, UTI  
Bundles



# Components of Enhanced Recovery Protocols

Preoperative	Intraoperative	Postoperative
<ul style="list-style-type: none"><li>• Patient education and expectation setting</li><li>• Mechanical bowel preparation and oral antibiotics</li><li>• Preoperative bathing</li><li>• Carbohydrate loading</li><li>• Clear liquid diet allowed until 2 hours before surgery</li><li>• Multimodal pre-anesthesia analgesics and anti-emetics</li></ul>	<ul style="list-style-type: none"><li>• Laparoscopic approach</li><li>• Prophylactic antibiotics (choice, timing, weight-based dosing and re-dosing)</li><li>• VTE prophylaxis</li><li>• Skin preparation with an alcohol-containing agent</li><li>• Regional anesthesia (epidural, spinal, transversus abdominus plane (TAP) block)</li><li>• IV anesthetics</li><li>• Normothermia</li><li>• Goal-directed fluid management (euvolemia)</li><li>• Avoidance of nasogastric tubes and drains</li></ul>	<ul style="list-style-type: none"><li>• VTE chemoprophylaxis</li><li>• Multimodal opioid-sparing analgesic regimen</li><li>• Early initiation of diet</li><li>• Early and progressive ambulation and mobilization</li><li>• Early foley catheter removal</li><li>• Minimize IVF</li></ul>

# For an elective colectomy, do you give patients a bowel prep?

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- A. No routine bowel preparation
- B. Selective bowel preparation (not all patients)
- C. Mechanical bowel preparation only
- D. Oral antibiotics only
- E. Mechanical bowel preparation + oral antibiotics



# After routine, elective colorectal procedures in your practice...

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- A. Most patients come out of OR with an NGT
- B. Most patients are kept NPO until return of bowel function
- C. Most patients are given a clear diet and advanced to regular diet quickly, as tolerated
- D. Most patients are given a regular diet

# Is regional anesthesia available to your patients for postoperative pain control?

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- A. No
- B. Yes – local block (i.e. transversus abdominous plane (TAP) block)
- C. Yes – Spinal
- D. Yes – Epidural
- E. Yes – Multiple of above options available

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# Why implement enhanced recovery?

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- Consistently demonstrated to be effective
  - Decreased postoperative length of stay
  - Decreased complications (SSI, UTI, VTE)
  - Decreased opioid use
  - Decreased costs
  - Improved patient satisfaction
- Becoming standard of care

# **Clinical Practice Guidelines for Enhanced Recovery After Colon and Rectal Surgery From the American Society of Colon and Rectal Surgeons and Society of American Gastrointestinal and Endoscopic Surgeons**

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Dis Colon Rectum. 2017 Aug; 60  
Surg Endosc. 2017 Aug;

# Barriers to

## implementation/maintenance

- Enhanced Recovery Protocols not universally adopted
- Criticized as difficult to implement and maintain  
Challenge conventional surgical practice
- Requires investment from multidisciplinary team:
  - Surgeons
  - Anesthesiologists
  - Clinic staff
  - Periop and floor nurses



# Michigan Surgical Quality Collaborative

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- How many hospitals have a fully implemented enhanced recovery protocol for colorectal surgery?

- Preoperative education
- Carbohydrate loading
- Multimodal analgesia
- Limitation of IVF
- Early enteral nutrition
- Ambulation

- State-wide telephone survey (63/72 hospitals), 2016
- Assessed key obstacles to implementation

George E, Krapohl GL, Regenbogen SE. Population-based evaluation of implementation of an enhanced recovery protocol in Michigan. *Surgery*.

# Michigan Hospitals (2016)

- 22% fully implemented enhanced recovery protocol
- 15% had protocols in development

63% of hospitals made no progress toward protocol implementation



- Surgeon engagement
- Disagreement on standard practices
- Coordination time/logistics for development/implementation
- Anesthesiology preferences



**Broader implementation of enhanced recovery protocols will require a 3-pronged approach:**

1. Improved dissemination of evidence-based standardized protocols to foster wider consensus
2. Administrative support to incentivize the time and logistic burden of implementation
3. Opportunities to educate and engage surgeon leaders

# How can Surgical Collaborative of Wisconsin (SCW) help?

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- Example order sets
- Patient education materials
- Strategies for engaging team members and administration
- Shared learning between SCW hospitals
- Benchmarked performance reports

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# Small group exercise and action plan