

**ARMY MEDICINE**  
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**CNS Role in the Implementation of Enhanced Recovery after Surgery**

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 1 March 2018

**BROOKE ARMY MEDICAL CENTER**  
 A TEAM OF TEAMS...CREATING TOMORROWS TODAY

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**Purpose and Outline**

**Purpose:** Discuss the Clinical Nurse Specialist role with the implementation of Enhanced Recovery after Surgery (ERAS) at a Level 1 Trauma Military Treatment Facility

**Outline:**

1. Background
2. ERAS
3. CNS Involvement

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**Background**

- Most productive within the Military Health System
- Stresses Evidence Based Practice
- Premier medical readiness training platform



  
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**Background**

**National Surgical Quality Improvement Program (NSQIP)**

- > 800 hospitals
- DEDICATED Nurse clinical reviewer
- Standardized definitions
- Data is processed and analyzed by ACS NSQIP (Chicago)
- Risk adjusted for patient factors
  - Shrinkage adjustment for surgical volume issues

  
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**Background-Findings**

- **Characteristics pre-implementation:**
  - Lack of preadmission patient education\*
  - Limited non-opioid adjunct use
  - Near universal use of NPO after midnight for surgery
  - Inconsistent early Foley catheter removal
  - Limited equipment for maintaining normothermia in perioperative period

  
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**Background- Challenges**

- Military Treatment Facility=High Turnover
- Size of Military Treatment Facility
  - Garnering staff buy in
- 4 Charting Systems

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**Background**

**The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care**

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**ERAS-Components**

Mid-thoracic epidural anesthesia/analgesia	Preadmission counselling
No nasogastric tubes	Fluid and carbohydrate loading
Prevention of nausea and vomiting	No prolonged fasting
Avoidance of salt and water overload	No/selective bowel preparation
Early removal of catheter	Antibiotic prophylaxis
Early oral nutrition	Thromboprophylaxis
Non-opioid oral analgesia/NSAIDS	No premedication
Early mobilization	Short-acting anesthetic agents
Stimulation of gut motility	Mid-thoracic epidural anesthesia/analgesia
Audit of compliance and outcomes	No drains
	Avoidance of salt and water overload
	Maintenance of normothermia (body warmer/warm intravenous fluids)

**ERAS** components: Postoperative, Preoperative, Intraoperative

Level of Evidence  
 Moderate Level to High Level

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## Spheres of Influence

- Excel at communication
- Fierce EBP advocates & master implementers

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## CNS Involvement

- Engage patients and verify preferences
- Consider resources, constraints and approval
- Develop localized protocol
- Collect baseline data
- Develop an implementation plan
- Prepare clinicians and materials
- Promote adoption
- Collect and report postpilot data

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## ERAS-Components

Mid-thoracic epidural anesthesia/analgesia	Preoperative	Preadmission counselling
No nasogastric tubes	Preoperative	Fluid and carbohydrate loading
Prevention of nausea and vomiting	Preoperative	No prolonged fasting
Avoidance of salt and water overload	Preoperative	No/selective bowel preparation
Early removal of catheter	Postoperative	Antibiotic prophylaxis
Early oral nutrition	Postoperative	Thromboprophylaxis
Non-opioid oral analgesia/NSAIDS	Postoperative	No premedication
Early mobilization	Postoperative	Short-acting anesthetic agents
Stimulation of gut motility	Postoperative	Mid-thoracic epidural anesthesia/analgesia
Audit of compliance and outcomes	Postoperative	No drains
	Intraoperative	Avoidance of salt and water overload
	Intraoperative	Maintenance of normothermia (body warmer/warm intravenous fluids)

**Level of Evidence**  
Moderate Level to High Level

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**CNS- Implementation**

Consistent Message

Available at Meetings

Garner Buy-In

Explain Change

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**CNS- Documentation**

- Multiple areas to chart same info
- 4 Systems that do not talk to each other
- Labor Intensive Data Collection

- Streamline
- Standardize
- Simplify

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**CNS- Collaboration**

- Brought in other key contributors
  - Nurse Scientists, Marketing, New OICs, Logistics, Hospital Ed
- Reached out to other CNSs
  - Checklists, Policies, Lessons Learned
- Encourage UPCs to get involved
  - Grassroot support/great feedback
- Provide feedback to leaders of PILOT floors
  - Kudos to staff/ Areas to improve

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## Conclusion

- Patients engaged
- Resources approved
- Localized protocol developed
- Baseline data collected
- Developed implementation plan
- Clinicians prepared and materials made
- Promoted adoption

**THE FORMULA FOR A WINNING TEAM**

Means Having a CNS involved!!!

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## References

Aarts, M., Ockeneck, A., Glicksman, A., Pearsall, E., Victor, J.C., & McLeod, R.S. (2012) Adoption of enhanced recovery after surgery (ERAS) strategies for colorectal surgery at academic teaching hospitals and impact on total length of hospital stay. *Surgical Endoscopy*, 26(2), 441-450. DOI: 10.1007/s00464-011-1897-5

Feroci, F., Lenzi, E., Baraghini, M., Garzi, A., Vannucchi, A., Cantafio, S., & Scalizzi, M. (2013). Fast-track surgery in real life: how patient factors influence outcomes and compliance with an enhanced recovery clinical pathway after colorectal surgery. *Surgical Laparoscopy & Endoscopy Percutaneous Techniques*, 23(3):259-65. doi: 10.1097/SLE.0b013e3182bb916f.

Gustafsson, U. O., Hausel, J., Thorell, A., Ljungqvist, O., Soop, M., Nygren, J., & Enhanced Recovery After Surgery Study Group. (2011). Adherence to the enhanced recovery after surgery protocol and outcomes after colorectal cancer surgery. *Archives of Surgery*, 146(5):571-7. doi: 10.1093/archsurg/146.5.571. Epub 2011 Jan 17.

Hui, V., Hyman, N., Visconti, C., & Oster, T. (2013). Implementing a fast-track protocol for patients undergoing bowel resection: Not so fast. *American Journal of Surgery*. doi:10.1016/j.amj Surg.2012.11.019; 10.1016/j.amj Surg.2012.11.019

Lassen, K., Soop, M., Nygren, J., Cox, P. B., Hendry, P. O., Sjoes, C., Von Meyenfeldt, M. F., ... Dejong, C. H. C. (2009). Consensus review of optimal perioperative care in colorectal surgery. *Archives of Surgery*, 144(10), pp.961-969. DOI: <http://dx.doi.org/10.1001/archsurg.2009.170>

Lovely, J. K., Maxson P. M., Jacob, A. K., Cina R.R., Horlocker T. T., Hebl J. R., Harmsen W. S., ... Larson D.W. (2012). Case-matched series of enhanced versus standard recovery pathway in minimally invasive colorectal surgery. *British Journal of Surgery*, 99(1):120-6. doi: 10.1052/bjs.7092. Epub 2011 Sep 21.

Martin, D., Roulin, D., Grass, F., Ador, V., Langqvist, O., Demartines, N., & Hübner, M. (2017). A multicentre qualitative study assessing implementation of an Enhanced Recovery After Surgery program. *Clinical Nutrition*. doi: 10.1016/j.clnu.2017.10.017. Epub 2017 Oct 31

Nelson, G., Dowdy, S.C., Lisata, J., Mens, G., Bakkum-Gomez, J., Meyer, L.A., Iriesta, M.D., & Ramirez, P.T. (2017). Enhanced recovery after surgery (ERAS) in gynecologic oncology – Practical considerations for program development. *Gynecologic Oncology*, 147: 617-620. Retrieved from <https://doi.org/10.1016/j.ygyno.2017.09.023>

Zhuang C. L., Ye X. Z., Zhang X. D., Chen B. C., & Yu Z. (2013). Enhanced recovery after surgery programs versus traditional care for colorectal surgery: a meta-analysis of randomized controlled trials. *Diseases of the Colon & Rectum*, 56(5):667-78. doi: 10.1097/DCR.0b013e3182b61262.

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## Questions

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