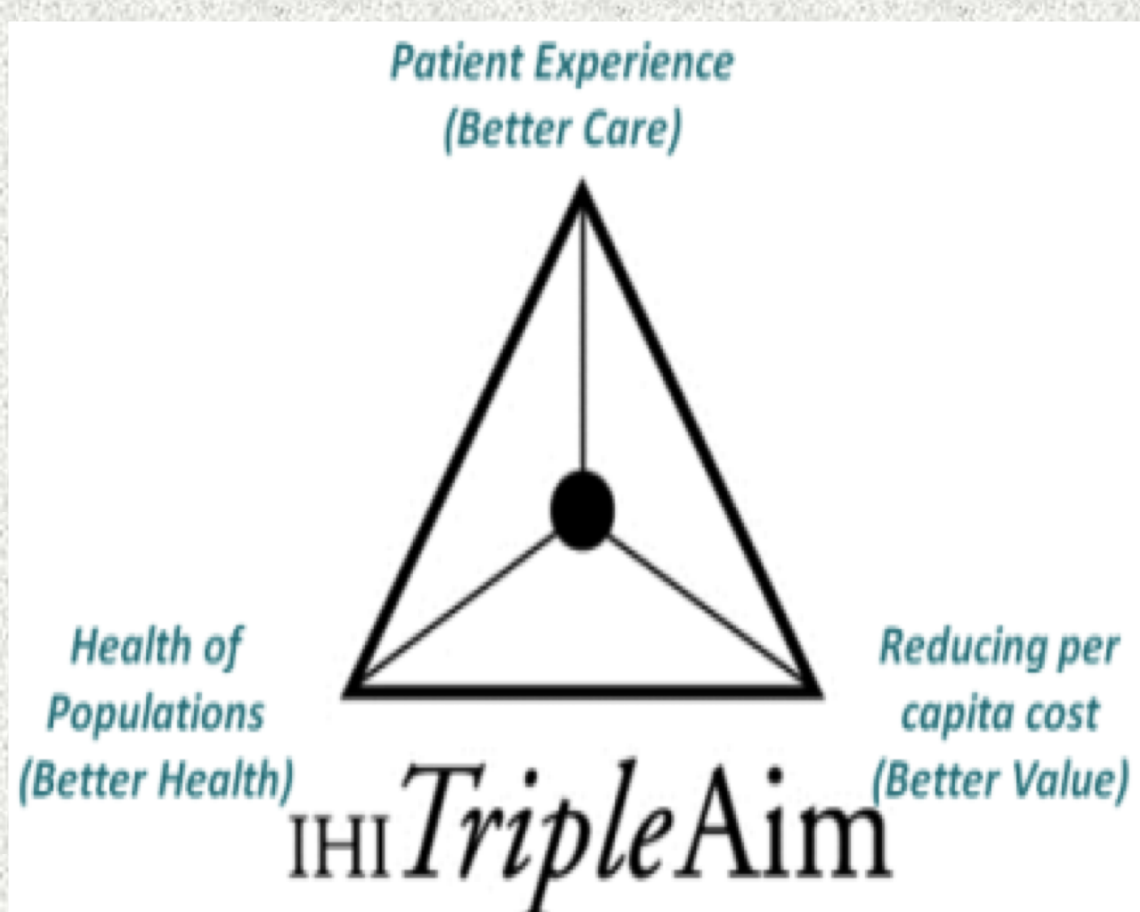
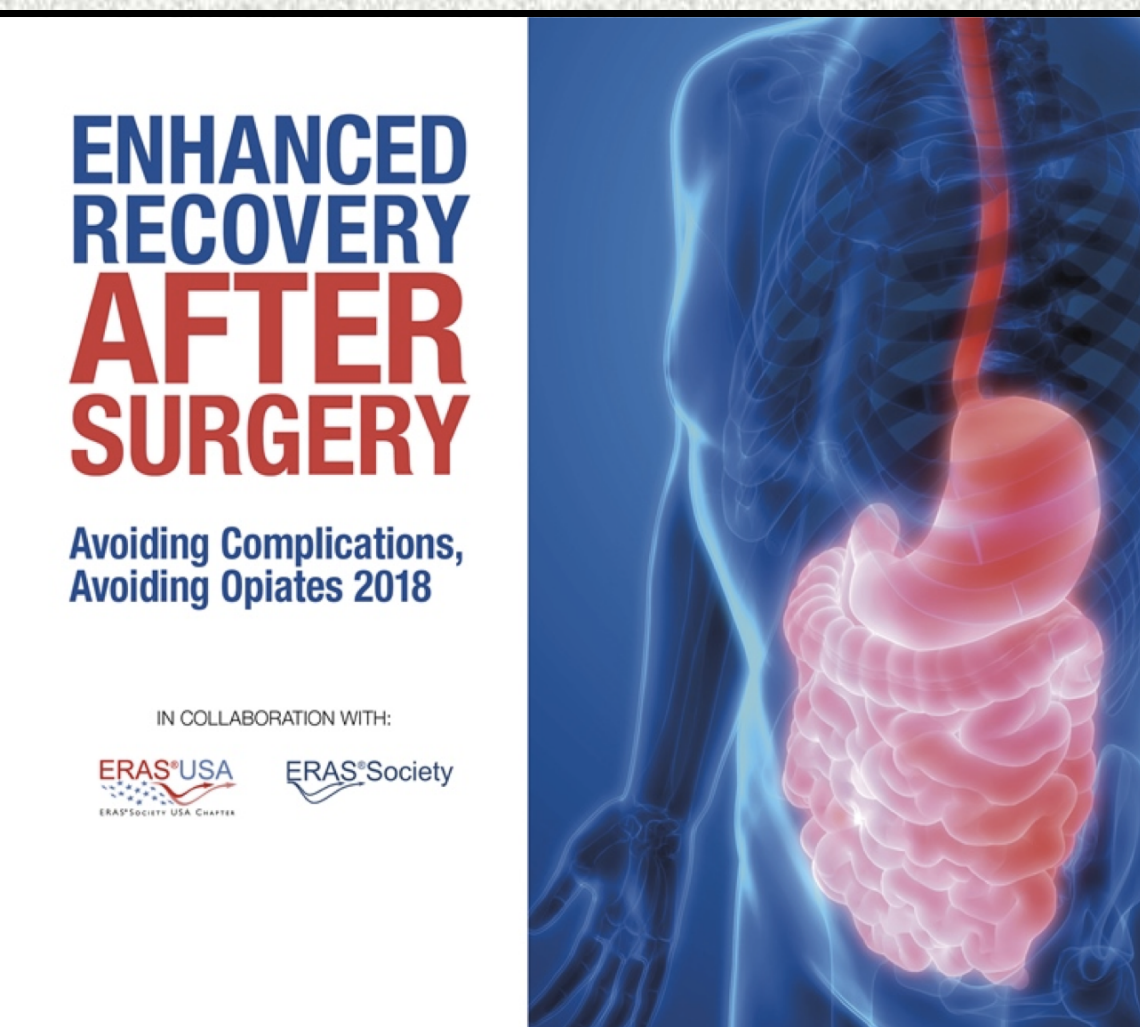


# ERAS: For Colorectal Surgery

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## ClearSight



## Problem

- Colorectal surgery is considered a routine procedure, but it is often associated with a variety of complications, including nausea and vomiting, bleeding, venous thromboembolism, uncontrolled pain, postoperative ileus, anastomotic leaking, and infection.
- As a result, significant morbidity and prolonged hospitalization are not uncommon in this population.

## Literature Review

- ERAS is a comprehensive protocol which has improved upon the traditional management of colorectal surgery. The goals of ERAS include adequate analgesia, early mobility, early return of gastrointestinal (GI) motility, and reduction in complications (Gustaffson et al., 2012). These aims are achieved by integrating several strategies during the perioperative period.
  - Preoperative optimization
  - Clear liquids up to two hours prior to planned procedure
  - PONV reduction strategies
  - Avoidance of postoperative nasogastric tube
  - Goal-directed fluid therapy
  - Reduction of opioid use through multimodal analgesia
- According to Thiele et al. (2015), the average hospital stay after open colorectal surgery was five to seven days and three to five days for laparoscopy.
- According to Thiele et al. (2015), patient LOS was decreased by two days with an Enhanced Recovery (ER) protocol.
- More importantly, ER participants showed fewer complications, shorter durations of ileus, and fewer readmissions (Miller et al., 2014).

## Methods

- Quantitative pre-post test design.
- Statistical data collected & analyzed with a paired t-test.
- Significance threshold for the paired sample t-test was set using the traditional  $p < .05$ .

## Analysis & Conclusions

- The project implementation included a 45-minute educational PowerPoint presentation.
- Before the presentation, the 49 participants received a pre-test with 12 questions.
- After the presentation, the participants received a post-test containing the exact same 12 questions.
- The average pre-test scores of all 49 participants was 52% and the average post-test scores were 83%.
- A paired t-test in SPSS was conducted and a t-value of -10.473 ( $p < .001$ ) was obtained, which was clinically significant.
- Therefore, it was concluded that the educational PowerPoint presentation was successful in improving the participants' knowledge regarding ERAS: For Colorectal Surgery.
- Limitations
  - Anticipated small sample size of 50.
    - Sample size was actually 49.
  - Short 45-minute presentation.
    - Difficult to retain subject long-term.
    - Hindered ability to apply to clinical practice.

## Findings

- The educative material helped increase the knowledge base of participating SRNAs so that in the clinical setting, they are adequately prepared to help implement and take part in the ERAS protocol.



Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre-Test	52.4694	49	19.58007	2.79715
	Post-Test	83.0612	49	14.34022	2.04860

Paired Samples Test								
		Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference			
					Lower	Upper		
Pair 1	Pre-Test - Post-Test	-30.59184	20.44802	2.92115	-36.46519	-24.71848	-10.473	.000

## Acknowledgements

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## References

- Available on separate paper upon request.