

Appendix 1 to Gresham LM, Sadiq M, Gresham G, et al. Evaluation of the effectiveness of an enhanced recovery after surgery program using data from the National Surgical Quality Improvement Program. *Can J Surg* 2019.

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Appendix 1. Supplementary material

Supplementary Table S1. Summary of ERAS guideline recommendations*

Preoperative	Preoperative counselling Reduced fasting duration Carbohydrate drinks Appropriate use of mechanical bowel preparation
Intraoperative	Goal-directed intraoperative fluid management Avoidance of prophylactic abdominal drains Avoidance of prophylactic nasogastric tubes
Postoperative	Early mobilization and ambulation Postoperative fluid management Early enteral feeding Use of chewing gum to reduce postoperative ileus Optimal duration of urinary drainage

*adapted from *BPIGS: Complete Guidelines – Enhanced Recovery After Surgery (Aarts et al., 2014)*,

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Supplementary Table S2. NSQIP surgical case variables

<i>Classification</i>		<i>Examples</i>
Demographic data		Sex Date of birth
Surgical profile		Principal procedure CPT code and description Anesthesia technique Elective Surgery Status
Pre-operative data	Clinical variables	BMI Smoking history Functional health status Pulmonary status Cardiac status Disseminated cancer
	Laboratory variables	HCT WBC Electrolytes Creatinine Liver Function Coagulation status Cardiac enzymes
Intraoperative data	Clinical variables	Specific procedures performed Concurrent procedures ASA class Emergency case identification Wound class
	Occurrence variables	Cardiac arrest Myocardial infarction Unplanned intubation
Post-operative data (within 30 days)	Occurrence variables	SSI Ventilation > 48 hours Urinary tract infection Stroke/CVA Cardiac arrest Myocardial infarction Graft failure DVT Systemic sepsis Return to OR within 30 days
	Laboratory variables	Significant levels of: HCT WBC Electrolytes Creatinine Liver function Cardiac enzymes
	Discharge variables	Hospital discharge date/time Post-operative death within 30 days

CPT, Current Procedural Terminology; ASA, American Society of Anesthesiologists; DVT, Deep Vein Thrombosis

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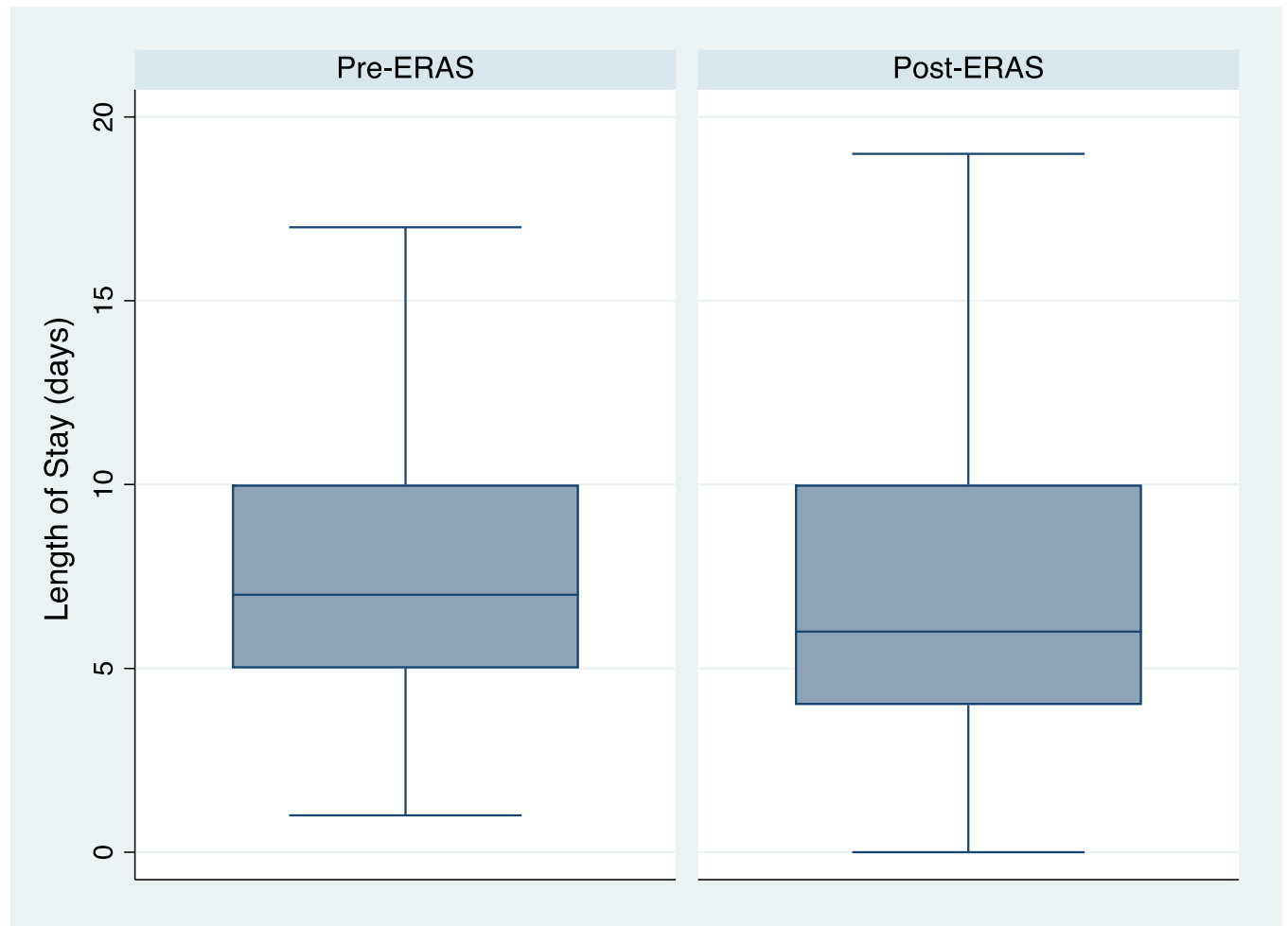
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Supplementary Table S3. LOS in patients undergoing surgery pre-and post-implementation of ERAS protocols at The Ottawa Hospital

		Pre-ERAS	Post-ERAS	p-value*
All procedures (open and laparoscopic)	N	189	419	
	LOS category (%)			
	<5 days	55 (29.1)	182 (43.5)	0.001
	6-10 days	87 (46.0)	137 (32.8)	
>10 days	47 (24.9)	99 (23.7)		
Open procedures only	N	123	289	
	LOS category (%)			
	<5 days	17 (13.8)	95 (32.9)	<0.001
	6-10 days	66 (53.7)	115 (39.8)	
>10 days	40 (32.5)	79 (27.3)		
Laparoscopic procedures only	N	66	129	
	LOS category (%)			
	<5 days	38 (57.6)	87 (67.4)	0.057
	6-10 days	21 (31.8)	22 (17.1)	
>10 days	7 (10.6)	20 (15.5)		

Supplementary Fig. S1A. Length of stay by ERAS status in open procedures

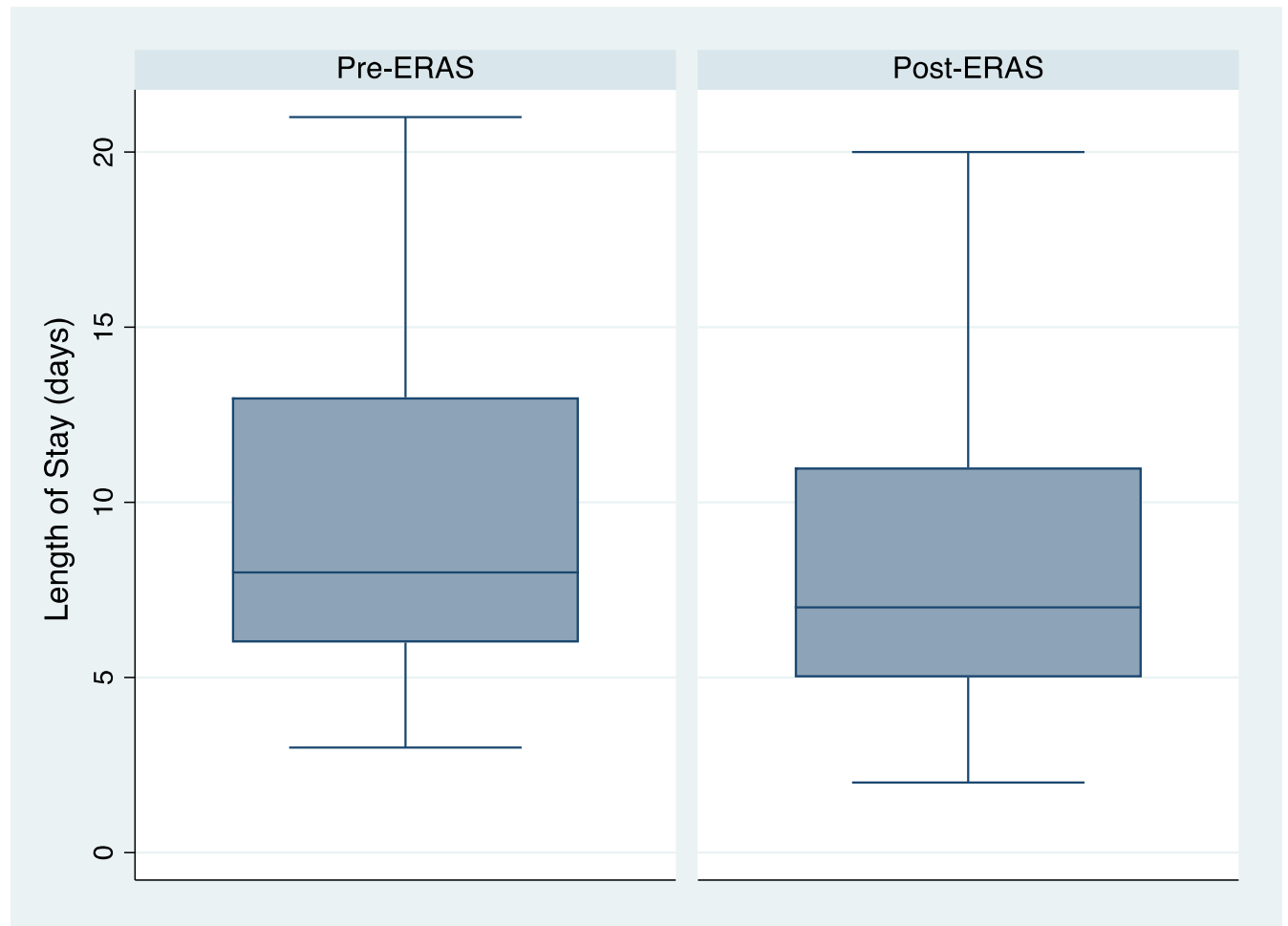


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Supplementary Fig. S1B. Length of stay by ERAS status in open procedures



Supplementary Fig. S1C. Length of stay by ERAS status in laparoscopic procedures

