

# APPLYING ERAS CONCEPTS FOR PATIENTS UNDERGOING SAME DAY LAP CHOLE

## Kaiser Permanente Vallejo Medical Center PACU

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### BACKGROUND:

Enhanced Recovery After Surgery (ERAS) is a set of guidelines used to help patients better prepare for their surgery, control pain, shorten their length of stay, and recover quicker by utilizing multimodal pain management, early nutrition, and early mobilization. ERAS has already proven to be successful in the inpatient population.

According to the Kaiser Permanente Regional Length of Stay (LOS) Committee, Kaiser Permanente Vallejo Medical Center outpatient laparoscopic cholecystectomy (lap chole) patients averaged a 3.2 hour LOS in 2021 as compared to the regional goal of 1.5 hours. Prior to the project, patients' verbatim comments on post op calls stated that their LOS in the PACU was too long in comparison to the actual surgery time.

### PURPOSE:

In the Kaiser Permanente Vallejo Medical Center post anesthesia care unit (PACU) for same day surgery, patients undergoing a lap chole will be able to:

- have a shortened LOS while maintaining safe and positive surgical outcomes using ERAS concepts.
- have a positive perspective in the lessened length of stay in the PACU.

### METHODOLOGY:

After review of evidence and root cause assessment, an audit tool was created to assess for variables related to LOS for lap chole patients at Kaiser Permanente Vallejo Medical Center.

- Project deemed not Human Subjects Research by IRB.
- Pre audit LOS for patients with lap chole surgery for 3 months prior to ERAS components (pre-intervention)
- Case numbers were used to protect patient identity
- Established a multidisciplinary team including nursing, management, and anesthesia with communication sent to chiefs of surgery

### ERAS components were then put into place:

- Offer early PO intake as tolerated
- Post operative opioid route change from IV to PO when tolerated
- Post operative antiemetics utilized to prevent nausea and increase motility
- Out of bed to a recliner within 90 minutes post op
- Attempt to remove routine MD order to have patient void prior to discharge

\*Exclusion factors include: order for admission, order to void prior to discharge, and any additional surgery occurring simultaneously.

\*65 charts were then audited assessing the same variables post intervention.

### RESULTS:

We met a power analysis of 65 per group by July 2023.

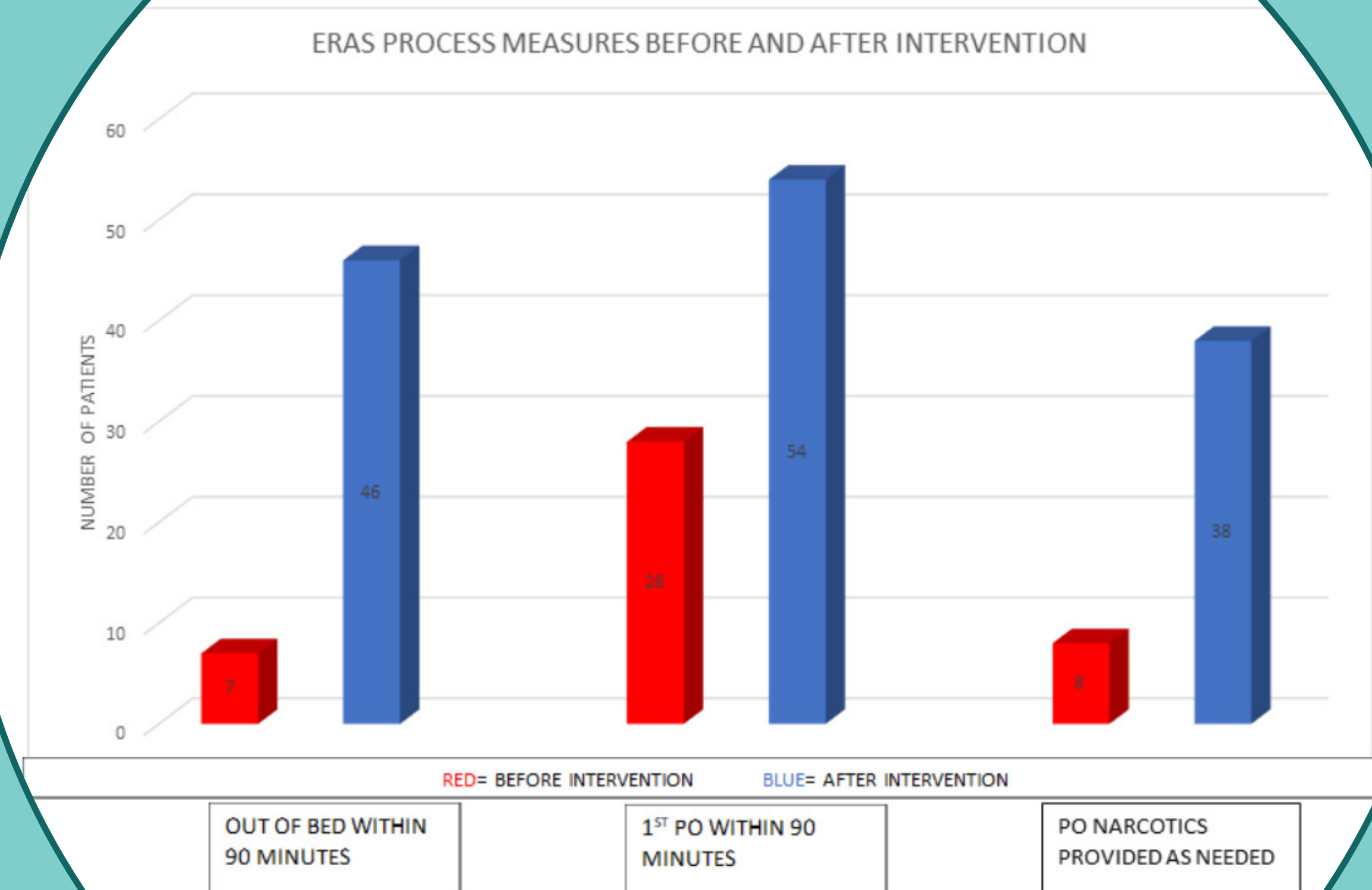
- The ERAS intervention group received less IV narcotics and use of oral pain meds increased by 5-fold!
- Number of patients receiving post op oral fluids within 90 minutes doubled!
- Out of bed within 90 minutes increased by 7-fold!

Our final results showed a **decrease PACU LOS by 81 minutes/patient, saving the hospital anywhere from \$53k-\$195k total** for the 65 patients we studied, based off of national statistics.

Our goal is to utilize this model in other patient groups.

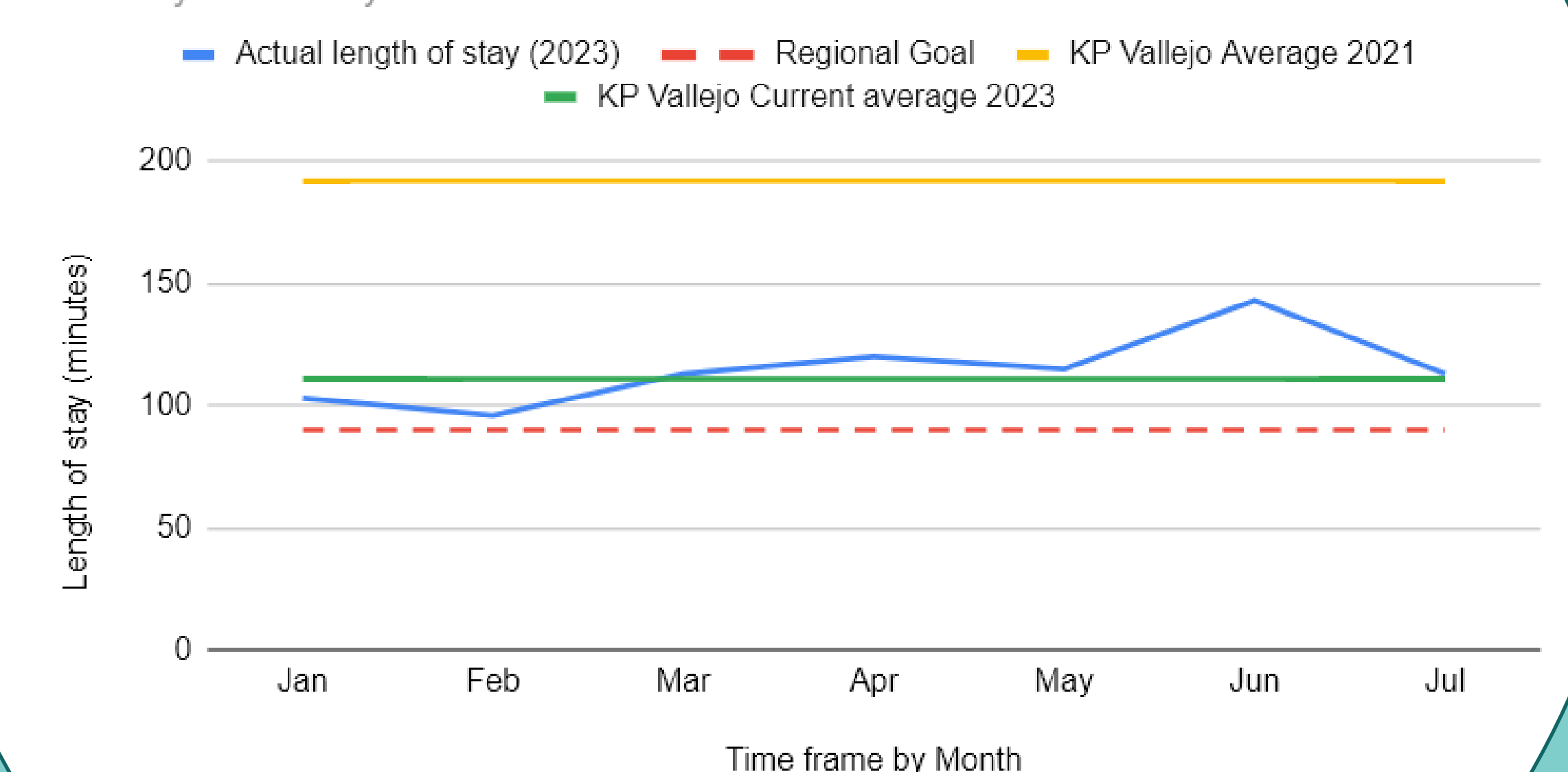
### What helped make us successful?

- Working together with the anesthesiologists to change their PACU order set to include PO narcotics for all of our patients
- Willingness of staff to change their practice and make it a priority to get the patients out of bed sooner and encourage earlier POs
- Support from management to allow for ongoing staff education



### Laparoscopic Cholecystectomy Length of Stay

January 2023 - July 2023



### REFERENCES

Frassanito, L., et al (2020) "Enhanced recovery after surgery (ERAS) in hip and knee replacement surgery: description of a multidisciplinary program to improve management of the patients undergoing major orthopedic surgery" Musculoskeletal Surgery; Vol 104 (1); 87-92  
Ljungqvist, O., et al (2021) "Opportunities and Challenges for the Next Phase of Enhanced Recovery After Surgery" JAMA Surgery; Vol 156 (8); 775-784  
Mustafa, A., et al (2011) "Preventing Postoperative Nausea and Vomiting After Laparoscopic Cholecystectomy: A Prospective, Randomized, Double-Blind Study" Current Therapeutic Research Clinical and Experimental Journal; Vol 72 (1); 1-12  
Pędziwiatr, M., et al (2018) "Current status of enhanced recovery after surgery (ERAS) protocol in gastrointestinal surgery" Medical Oncology; Vol 35 (95)

### Post-Op Lap Cholecystectomy Cheat Sheet

- Have PO fluids at bedside when pt arrives from OR
- Call ride when patient arrives to PACU (remind them the patient will be ready for discharge within 90 minutes unless otherwise notified and that they need to pick up their discharge medications ASAP –please provide them with the MR# if they don't already have it)
- Consider IV Reglan in acute post-op phase
- Consider giving additional IV fluids (if not contraindicated)
- Consider PO narcotics as soon as pt is tolerating orals
- Get patient up to a recliner chair as soon as they are deemed stable and ready – (please remember to document this under PACU Flow Sheet; add row; hit groups and rows; free text "recliner"; hit enter; hit accept; from here you can choose sitting!)
- Turn warmer off earlier rather than later (if normothermic), especially if patient is nauseous

Keep up the great work!

We appreciate everyone's help in making this pilot successful!



### CONTACTS:

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