

Enhanced Recovery After Surgery (ERAS) Program Evaluation- Cesarean Section

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BACKGROUND

Enhanced recovery after surgery (ERAS) ^{1,2,3,4,5}

- Evidence-based care pathways focused on optimizing
 - Pain control
 - Nutrition
 - Fluids
 - Mobility
- The Goal for implementing this evidence-based pathway was to decrease surgical stress and optimize patient outcomes

Patient Resources

- Pre/post operative patient education
- Laminated flyers (see Figure 1 & 2)
 - Note that some patients may labor prior to cesarean section

Figure 1.

Ask your nurse about the following:

- Alternate walking and resting
- Counterpressure/massage
- Distraction (watch a movie/listen to music/etc.)
- Warm bath/shower
- Sitting on a birth ball/rocking chair
- Position changes
- Essential oils
- Low lighting, quiet room, minimal visitors or interruptions
- Room temperature adjustments
- Hydration (water or ice chips)
- Warm blankets

Helpful tips for support person:

- Rest when she rests. (eat, coffee, water, etc.)
- Provide encouragement, coaching (Say "you can do this, nice job, take a breath, you're so strong")
- Offer her water, ice chips, etc.
- Suggest position change
- Ask your nurse to review plan of care and ask questions
- Work with care team to best support her

Get Well Network

There are several relaxation resources on the TV in your room. Use your pillow speaker or keyboard to access Get Well Network and click "For Your Comfort". "Relaxation Videos" and "Guided Imagery" have many options that can help you relax during labor and postpartum.

Figure 2.

What will help the pain in my...?

Bottom

- Warm tub soaks
- Squirt bottle
- Tucks pads
- Dermoplast spray
- Ice pads

Belly/Back

- Heat, warm blankets
- Cold, ice packs
- Emptying your bladder
- Walking
- Position changes

Breasts/Nipples

- LATCH (ask for help)
- Rub colostrum on nipples
- Lanolin
- Hydrogels
- Warm shower/compress
- Massage/Hand-expression

Use the 5 S's to Soothe your Baby:

- Swaddle
- Side-lying Position
- Shush
- Swing
- Suck

Ask your nurse for a demonstration!

PURPOSE

Explore pre/post ERAS process implementation associations

- Length of stay
- Foley duration after delivery
- Opioid use trends
 - During stay
 - Prescribing at discharge
 - Prescribing post-discharge

METHODS

Retrospective Institutional Review Board approved study

- Electronic health record (EHR) review
- Cesarean section deliveries performed in this midwestern hospital setting
 - January 1, 2018, through December 1, 2022
 - ERAS implementation July 13, 2020

Variables compared

- Length of stay
- Foley catheter duration
- Opioid medication trends pre- and post- implementation
- Basic demographics for the population will also be analyzed
- Multiple birth deliveries were included
- Episodes involving a neonatal intensive care unit (NICU) admission were excluded from this analysis

Analysis ⁶

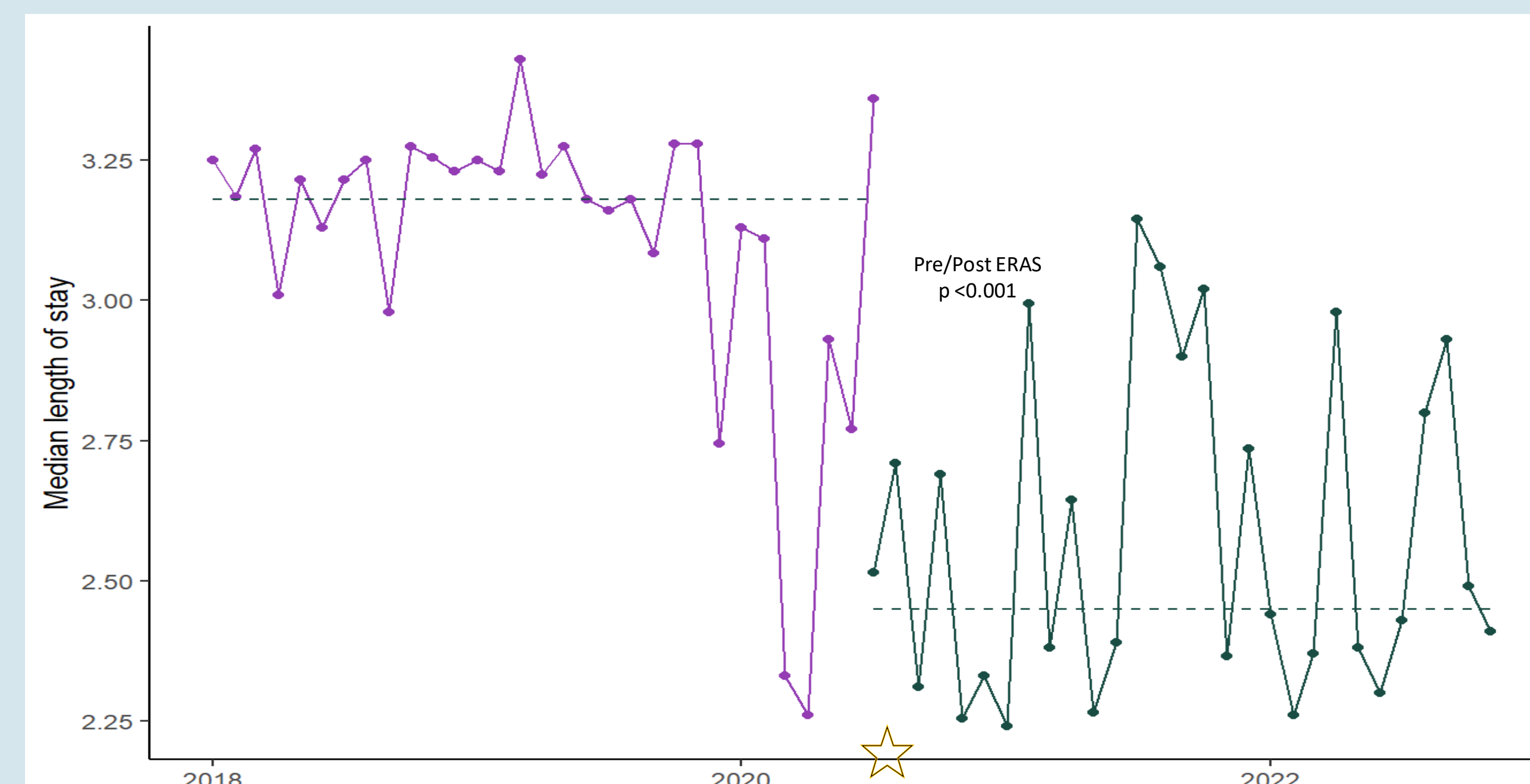
- Statistical software program R, version 4.2.2
- Statistical Significance $p < 0.05$
- Pearson's Chi-squared
- Wilcoxon
- Fisher's exact

RESULTS

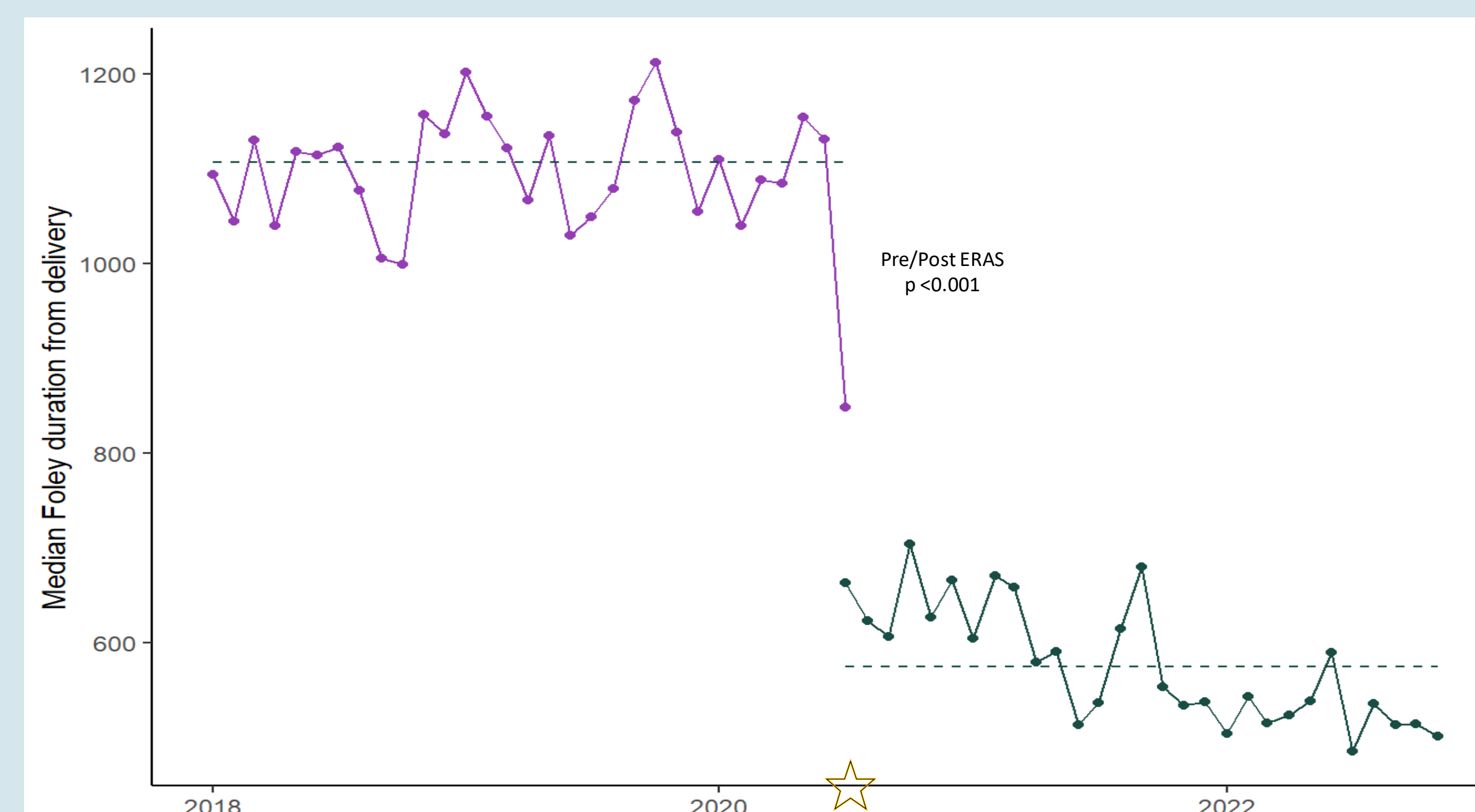
DEMOGRAPHICS

- Overall study population had a mean age at delivery of 30.8 with 1829 cesarean delivery episodes
- NICU admissions (413) were excluded from this analysis
- Focus population (1416) included cesarean delivery episodes
 - Pre/post (739/677) implementation cesarean episodes

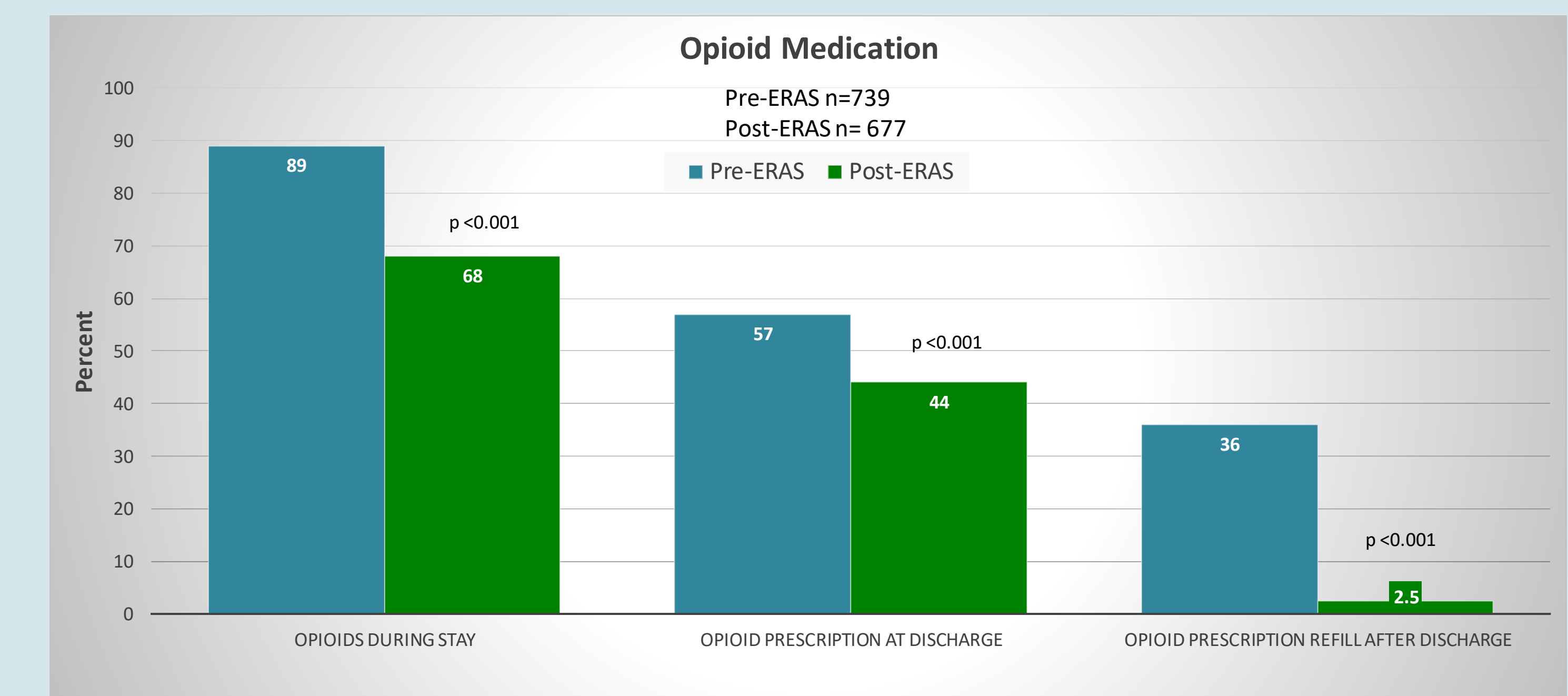
★ Implementation date July 13, 2020



Median length of stay decreased significantly (3.2/2.5) days post-ERAS implementation



Median foley duration decreased significantly (1107/576) minutes post-ERAS implementation



Episodes of opioid delivery during stay, opioid prescriptions at discharge, and opioid prescription refills after discharge decreased significantly post-ERAS implementation

NURSING IMPLICATIONS

Limitations

- Single department within the institution
- Retrospective data collection is restricted to documentation present in the EHR
- Other complementary improvement projects may have played a role in the overall reduction of opioid prescriptions and refills
 - Note complementary improvements were also present during the pre-implementation timeframe

Implications

- Standardizing post-surgery care with the implementation of an evidence-based ERAS process
- Significant impact on:
 - Length of Stay
 - Foley duration
 - Opioid medication usage

Future Recommendations

- Continue patient and staff education on the ERAS process
- Evaluation of the program to identify areas for improvement
- Investigating patient/staff perceptions of the ERAS process

REFERENCES & MORE INFORMATION

