

REDUCING OPIOID USE AFTER APPENDECTOMY

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Introduction

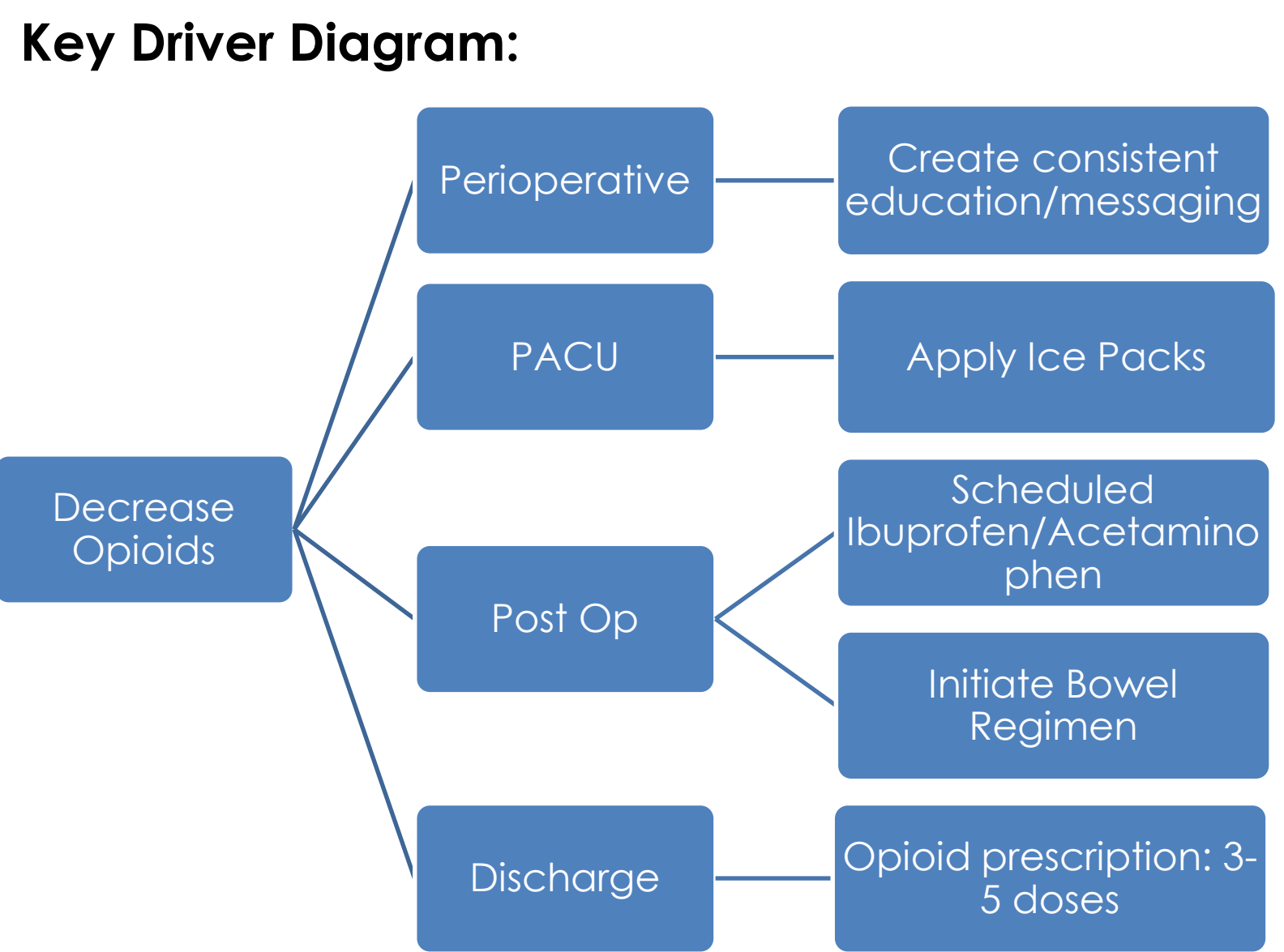
Perioperative care after appendectomy may be the first exposure to opioids for many children. A quality improvement (QI) project was implemented to assess current practice of prescribing pain medications after a laparoscopic appendectomy to decrease unnecessary opioids use via simple, targeted steps.

Current State Analysis

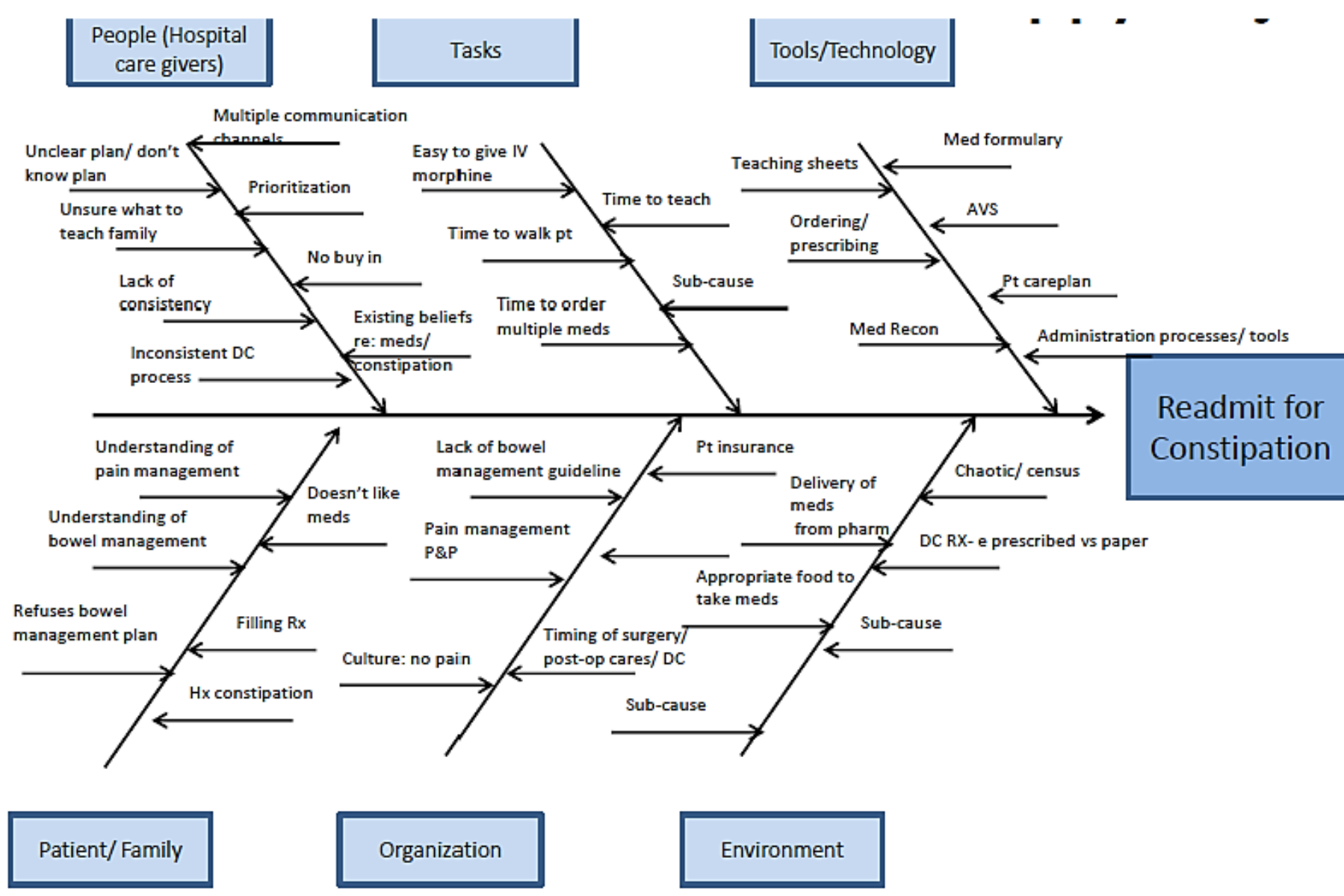
Median total IV post-op opioid Doses (range)	0 (0-7)
Median total enteral post-op doses (range)	2 (0-14)
Patients with opioid prescription at discharge (percent)	793 (97.4)
Median number of opioid doses prescribed (range)	17 (2-139)
Opioid prescriptions filled (percent)	474 (59.8)
Median length of stay in hours (range)	21.9 (2.0 – 95.6)

Aim

Global Aim Statement: Create efficient and effective care of the patient with acute appendicitis by reducing post operative opioid use and reducing the incidence of post discharge return for constipation.



- Specific Aims:**
- Reduce opioid use after appendectomy for acute appendicitis
 - Decrease unplanned returns to the system (emergency department, clinics, and hospital readmissions)



Measures

- Median # of IV Doses
- Median # of Enteral Doses
- Percent of Opioid Prescription at discharge
- Median # of Opioids Prescribed
- Percent of Opioid Prescriptions Filled
- Median LOS
- Percent Returns for Pain – Balancing Measure
- Percent Returns for Constipation – Outcome Measure

Plan-Do-Study-Act

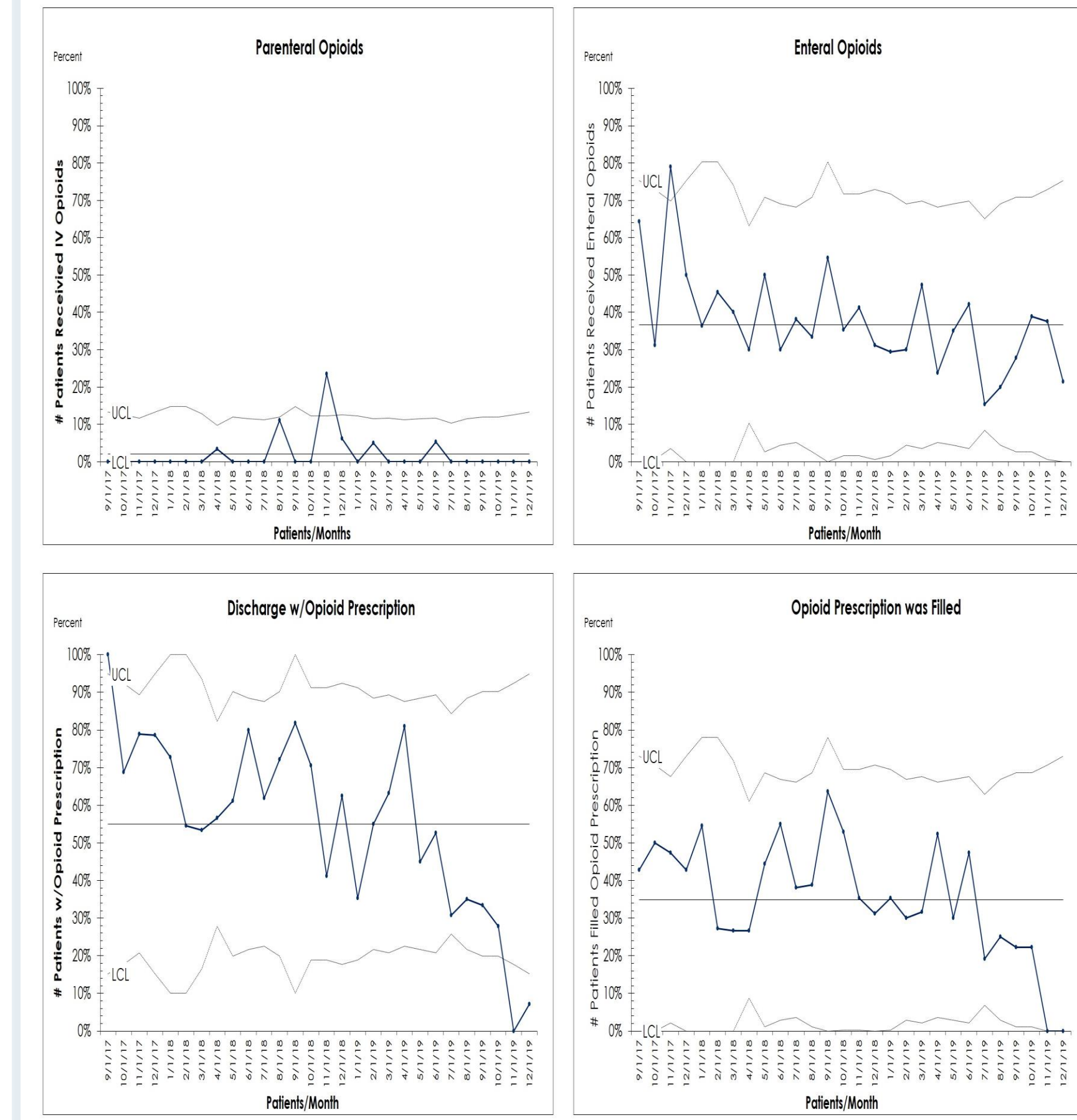
Interventions

Ice Packs in PACU
Pain Scores w/i 30 minutes
Order set w/scheduled non-opioids

Outcomes

Opioid Percent Decrease:
 (IV: 93%, PO: 54%)
Opioid median doses: 17 → 11

Sustainment



Control charts specifying upper and lower control limits for assessing variability in conforming to the QI process. The center line is the expected value of proportions based on the sample size. The arrow denotes the point when the protocol was fully implemented (9/2017 – 12/2018). The sample size for the control chart is consistent with the upper and lower limits of the distribution with a similar sample size. Control charts A-D demonstrate consistent practice for the QI process with no special cause variation determined. A. Utilization for the post implementation period of parenteral opioids B. Utilization of enteral opioids C. Discharge opioids for the post implementation D. Returns to healthcare system P chart for assessment of outcomes.

Acknowledgements

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Outcomes

- 99.1% compliance with process
- 96% ↓ in IV Opioids
- 67.2% ↓ in PO opioids
- 58.5% ↓ in opioid prescriptions w/ 54.5% ↓ in prescriptions provided to families filled
- 79.4% reduction in total doses of opioids

Goals for 2020:

- Scheduled Tylenol/Ibuprofen 48 hours post op then as needed
- Opioids rescue only in the immediate post-operative course
- Opioids if prescribed 3-5 doses only.
- “Just in case prescriptions” are not provided - patients/care givers call if needed, providers e-prescribe
- The length of stay goal: same day discharge when able (LOS ≤ 12 hours)