

# AdaptX™

## CASE STUDY

### Eliminating Opioids from Surgery

*"AdaptX's OR Advisor empowered our team to transform patient care by enabling us to assess, improve, and manage our protocols at unprecedented speed."*

*Dr. Lynn Martin, Medical Director*



## THE CHALLENGE

The opioid epidemic causes over 40,000 deaths each year in the U.S., and surgery is a recognized gateway to persistent opioid use. 7-12% of adults and 5-6% of adolescents develop persistent opioid use following surgery.

Traditionally, opioids are used during and after surgery to treat surgical pain. Despite advances in non-opioid therapeutics, adoption of non-opioid approaches has been very slow. Shifts in medicine traditionally occur over decades, largely because clinicians struggle to distinguish “change” from “improvement” following adoption of new treatments techniques.

## FOR MORE INFORMATION, CONTACT US

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## THE SOLUTION

AdaptX's *OR Advisor* was introduced as a self-service clinical performance solution. This allowed clinical teams and their leaders to directly access real-world data collected by their EMR. Now, they could look across their patients to manage focused improvements and understand the performance of their protocols.

Reduction in  
Surgical  
Opioid Use

↓ 5x

### RESULT

Implemented opioid-free anesthesia protocols for inpatient and outpatient surgeries, across more than 40,000 patients.

Reduction  
Length of Stay

↓ 1 day

Post-Surgery

### RESULT

Avoiding opioid side effects, for example reduced length of stay following appendectomies by more than 1 day per patient.

## THE DETAILS

Clinicians and their leaders can now quickly and easily leverage their EMR data to find actionable answers to clinical and operational questions. And, they can track key clinical and operational metrics over time, investigating treatment and workflow outcomes on-the-fly. As a result, they are empowered to rapidly improve and manage care.

Physicians, for example, asked "How does reducing morphine by 0.1 mg/kg and replacing with dexmedetomidine 1mcg/kg effect the post-operative recovery profile of patients with a BMI of 19-25 undergoing a laparoscopic appendectomy?" And: "What is the effect of non-opioid approaches on length of stay, pain score, nausea rate, and pain rescue medications?"

While the hospital had historically taken years to review drug protocols, AdaptX enabled improvement cycles of mere weeks. With embedded AI and intuitive data visualizations, clinical teams quickly learned from their real-world data, improving care without burdening scarce analyst and data science resources.

## THE RESULTS

In 18 months, the health system virtually eliminated opioid administration from outpatient surgeries. At the same time, the clinical team eliminated opioids from 50% of complex inpatient surgeries. Patient outcomes dramatically improved: the post-operative nausea and vomiting (PONV) rate fell 10x, from 3% to under 0.3%. Patients' post-operative pain experience also improved; the need for "rescue" pain medication in recovery dropped from 11% to under 6%. Drug costs also fell dramatically. Perhaps best of all, patients recovered faster and had shorter lengths of stay.

INPATIENT and OUTPATIENT:

>40,000



SUCCESSFUL OPIOID FREE SURGERIES

*"AdaptX's OR Advisor allowed us to quickly implement non-opioid alternatives, enlist clinicians, and dramatically improve care across inpatient and outpatient service lines."*

*Dr. Greg Latham, Anesthesiology Director*

## THE BENEFITS

### • Patient Outcomes & Satisfaction

Avoiding opioids improved patient recovery after surgery. The most frequent side effect (nausea and vomiting) was practically eliminated. This led to dramatic improvement in patient satisfaction scores.

### • Drug Costs

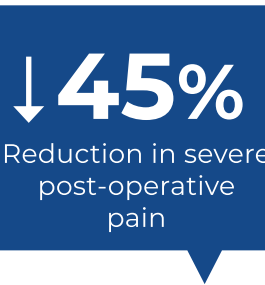
With opioid free surgeries, drug spending fell by 85%.

### • Increased Bed Capacity

Post-surgery length of stay dropped significantly by eliminating side effects from opioids, resulting in reduced costs and increased bed capacity.

### • Increased Demand

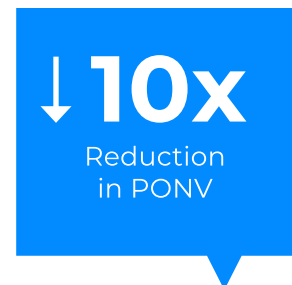
With increased public awareness of the risks of opioids, many patients are seeking an opioid-free surgery experience.



### RESULT



Frequency of "rescue" pain medications in post-op recovery is a key measure of patients' pain experience. Rescue meds dropped from 11% to under 6%.



### RESULT



The most common side effect of surgical anesthesia is post-op nausea and vomiting (PONV), which dropped from 3% to under 0.3%.



For more updates:  
[www.adaptx.com/news](http://www.adaptx.com/news)