

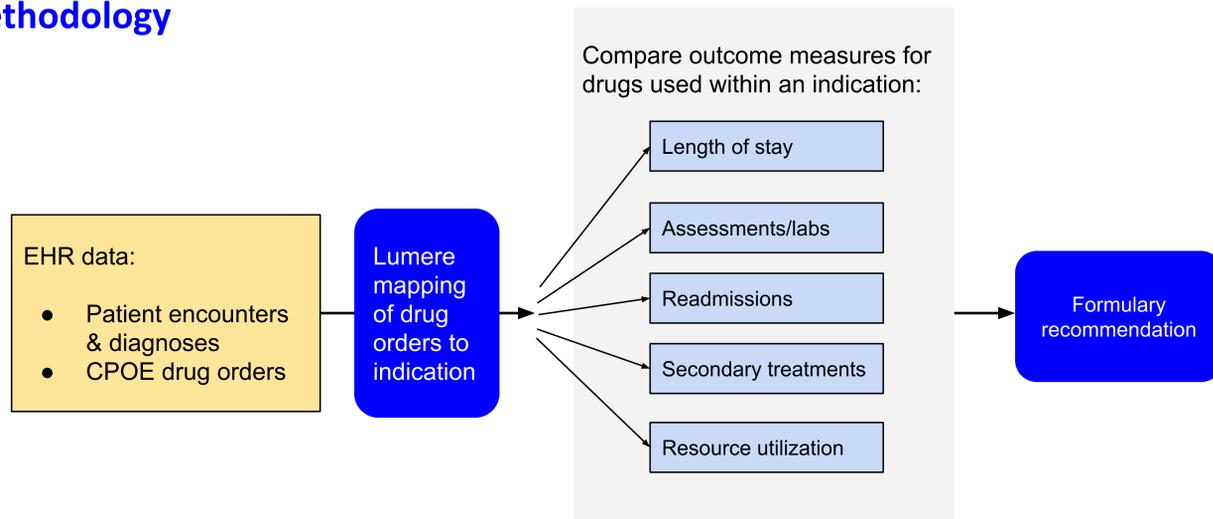
Background

A multistate integrated delivery network (IDN) on the East Coast was concerned about care variation in utilization of perioperative and postoperative drugs. The IDN saw year-over-year growth in spend of close to 30% but was unsure of the root cause. Pharmacy leaders identified two classes of drugs—parenteral analgesics and continuous infusion sedatives—as areas to investigate for potential changes that could drive greater value for both the IDN and its patients.

AIMs

- Use local patient data to analyze outcomes and inform formulary decisions that would lead to variation and cost reductions.
- Develop a tactical plan to better understand if the clinical benefits of these drugs justified their high costs. Use these findings to inform formulary decisions and reduce drug costs while maintaining outcomes.

Methodology



Provider Total Dataset

12 months, patient EHR data:

- ~3M patient encounters
- ~1.2M unique patients
- 15+ facilities

12 months, drug purchasing data:

- ~\$235M drug spend
- 15+ facilities

Parenteral analgesics for acute pain management

The IDN wanted to evaluate if newer, non-opioid analgesics such as Ofirmev provided enough clinical benefit to justify price premiums.

Drugs evaluated:

- Ofirmev (acetaminophen)
- Opioids (hydromorphone, fentanyl, morphine, etc)

Analgesic patient dataset:

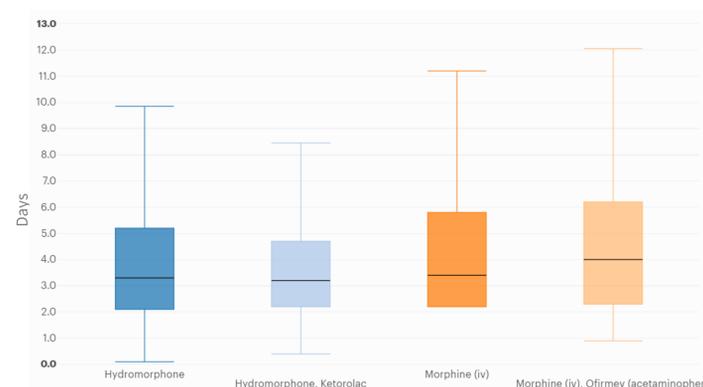
~14,300 patient encounters, N > 100 for all drug combinations

Other drugs evaluated:

Caldolor (ibuprofen), Ketorolac, Diclofenac
Contact Lumere for additional analyses

Inpatient length of stay

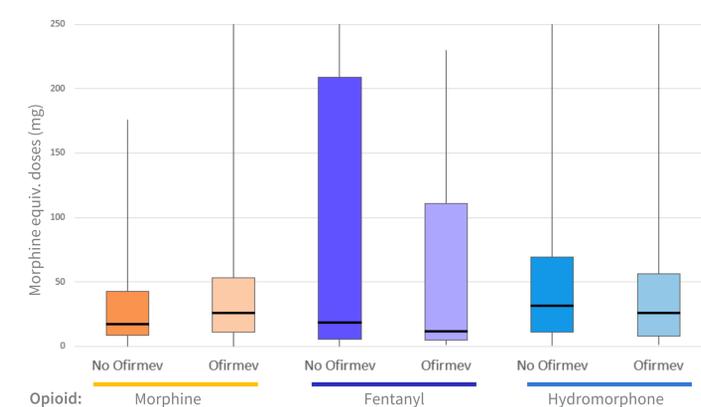
Published evidence and local patient data both do not support IV acetaminophen's claims of reducing overall length of stay.



Action taken: Deletion of Ofirmev from formulary results in ~\$1.2M savings

Impact on opioid use

Contrary to manufacturer claims, there was not a significant decrease in overall opioid use in patients treated with Ofirmev.



Continuous infusion sedatives

The IDN aimed to understand if there was opportunity to reduce clinical variation by moving to a primary sedative and which drug was optimal for the local patient population.

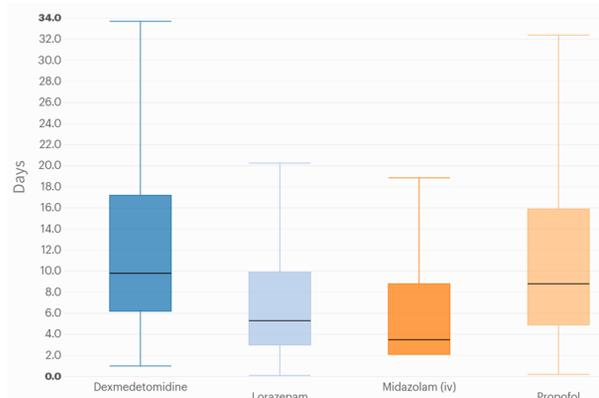
Drugs evaluated:

- Lorazepam
- Midazolam
- Dexmedetomidine
- Propofol

Sedative patient dataset: ~18,000 patient encounters, N > 100 for each drug (combinations excluded)

Inpatient length of stay

Lumere research team's in-depth literature evaluation and the data concluded no statistically significant differences in LOS.



Action taken: Choose Dexmedetomidine to optimize ventilation time in the ICU

Mechanical ventilation duration

Real world data shows reduced ventilation time when Dexmedetomidine is used. It may be a better sedative choice for ICU patients.

