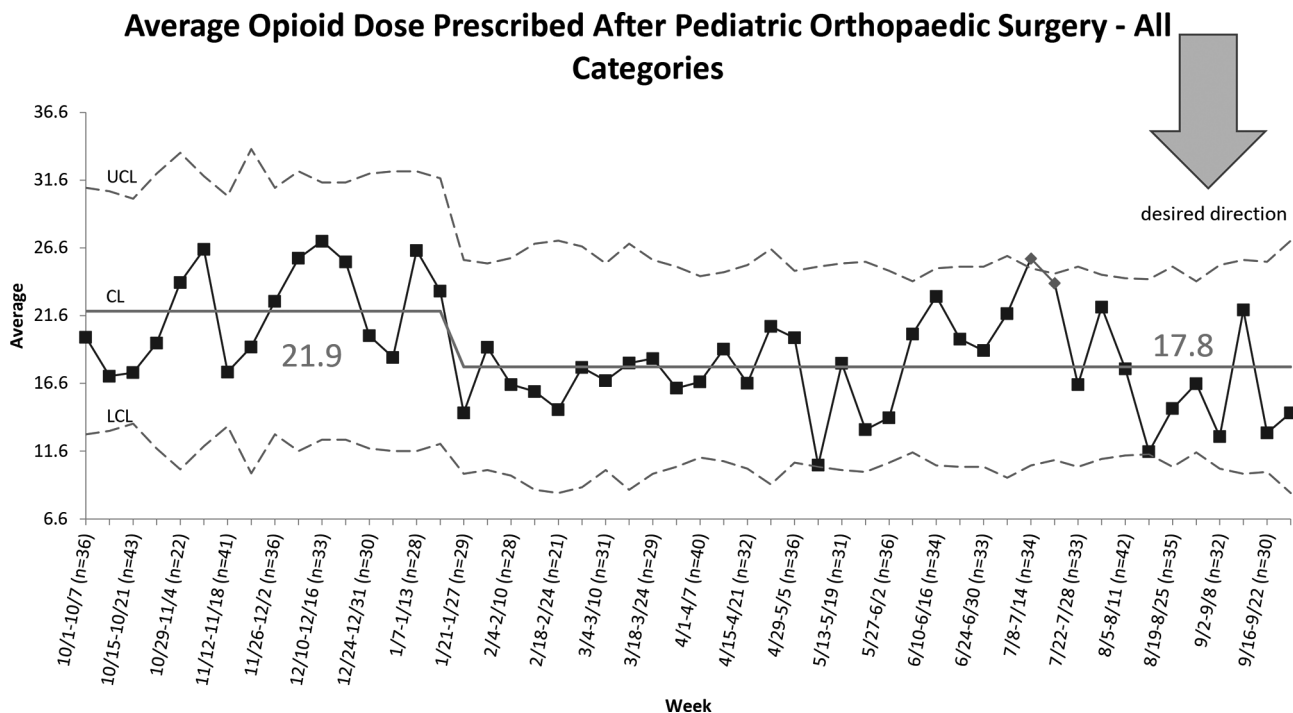


Abstract 9 Figure 2 P-chart showing compliance with the opioid prescribing protocol for the one month prior to protocol being implemented and 11 months following protocol implementation. Compliance with the protocol at end of the study period was 97%



Abstract 9 Figure 3 X-bar chart showing the average number of opioid doses prescribed for the one month prior to protocol being implemented and 11 months following protocol implementation. The average number of doses decreased from 21.9 to 17.8 (4.1 doses) over the study period

10 **DECREASING PAIN EXPERIENCED BY HOSPITALIZED PEDIATRIC PATIENTS BY INCREASING THE USE OF TOPICAL ANESTHETICS FOR PERIPHERAL INTRAVENOUS (PIV) LINE PLACEMENT**

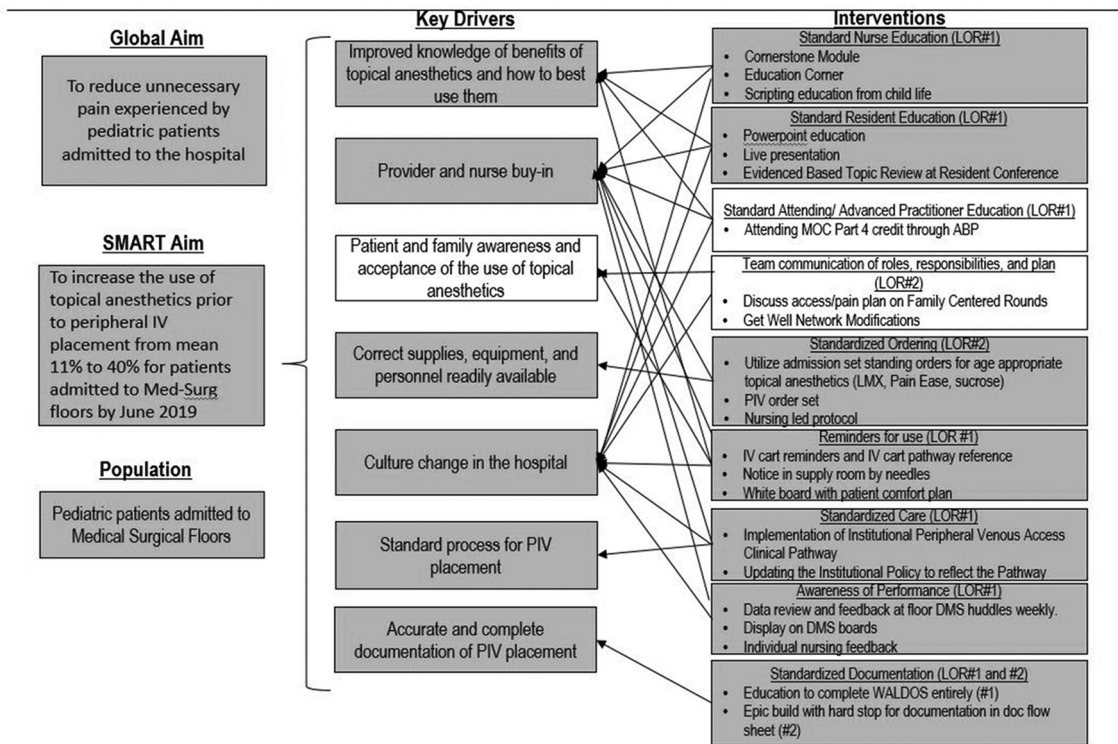
Emilee Lewis, Ilana Waynik, Sarah Mackey. *Connecticut Children's Medical Center, US*

10.1136/bmjopenq-2019-ih1.10

Background Venous access is a common source of pain for hospitalized patients. Topical anesthetics are effective at decreasing needle pain, can improve success rate, and decrease procedure time. At our institution, there is inconsistent use of topical anesthetics for PIV placement.

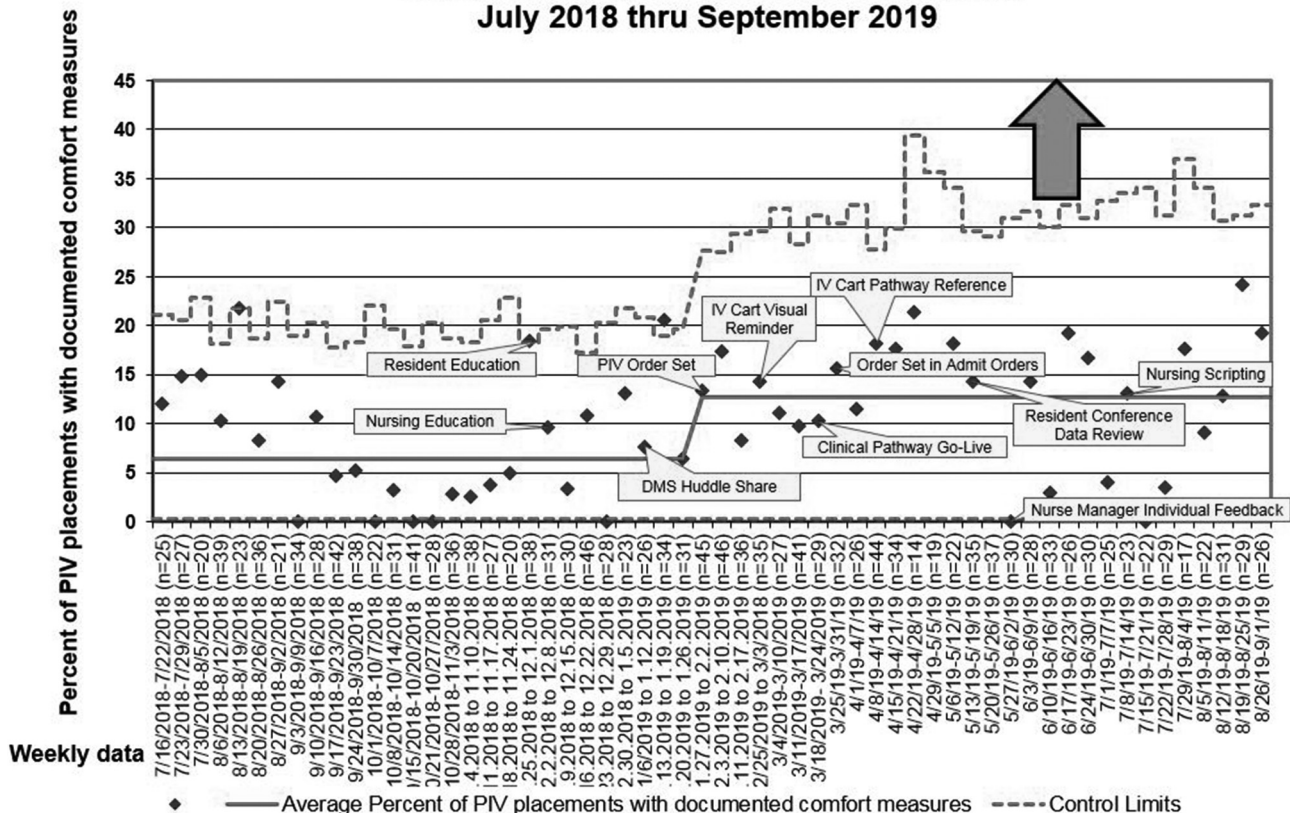
Objectives The global aim was to reduce pain experienced by hospitalized pediatric patients. The SMART aim was to

Decreasing pain experienced by hospitalized pediatric patients by increasing the use of topical anesthetics prior to peripheral IV placement.
 Project Leader(s): Emilee C. Lewis, MD
 Key Driver Diagram (KDD)
 Revision Date: 6/13/2019



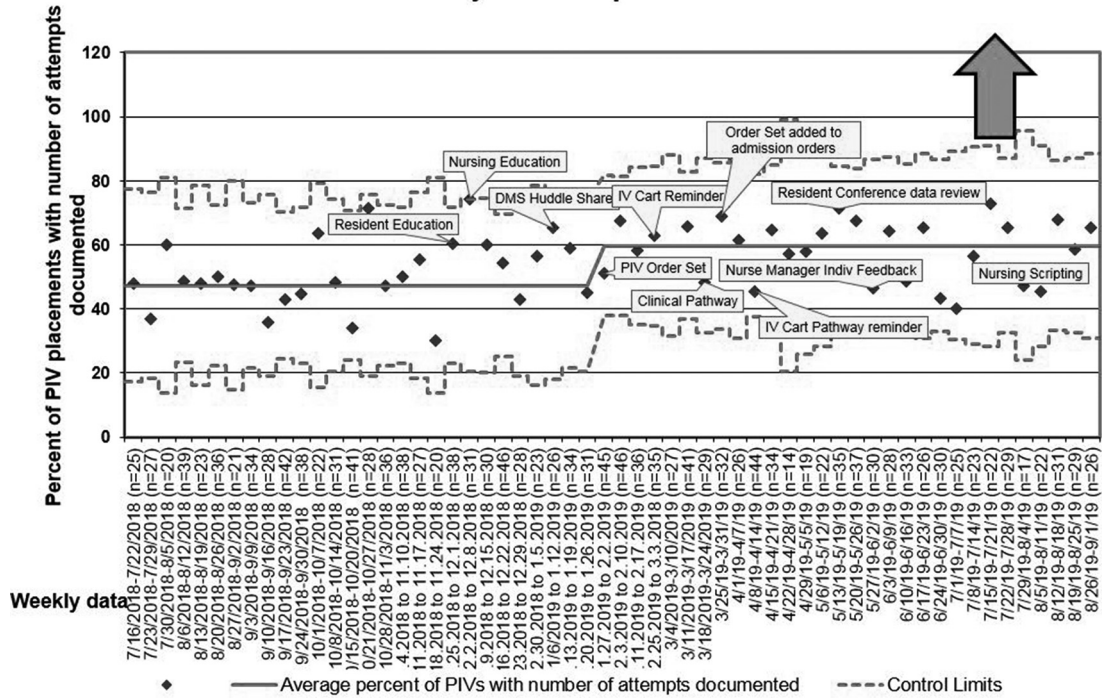
Abstract 10 Figure 1 Key driver diagram

Comfort Measures Prior to PIV Placement July 2018 thru September 2019



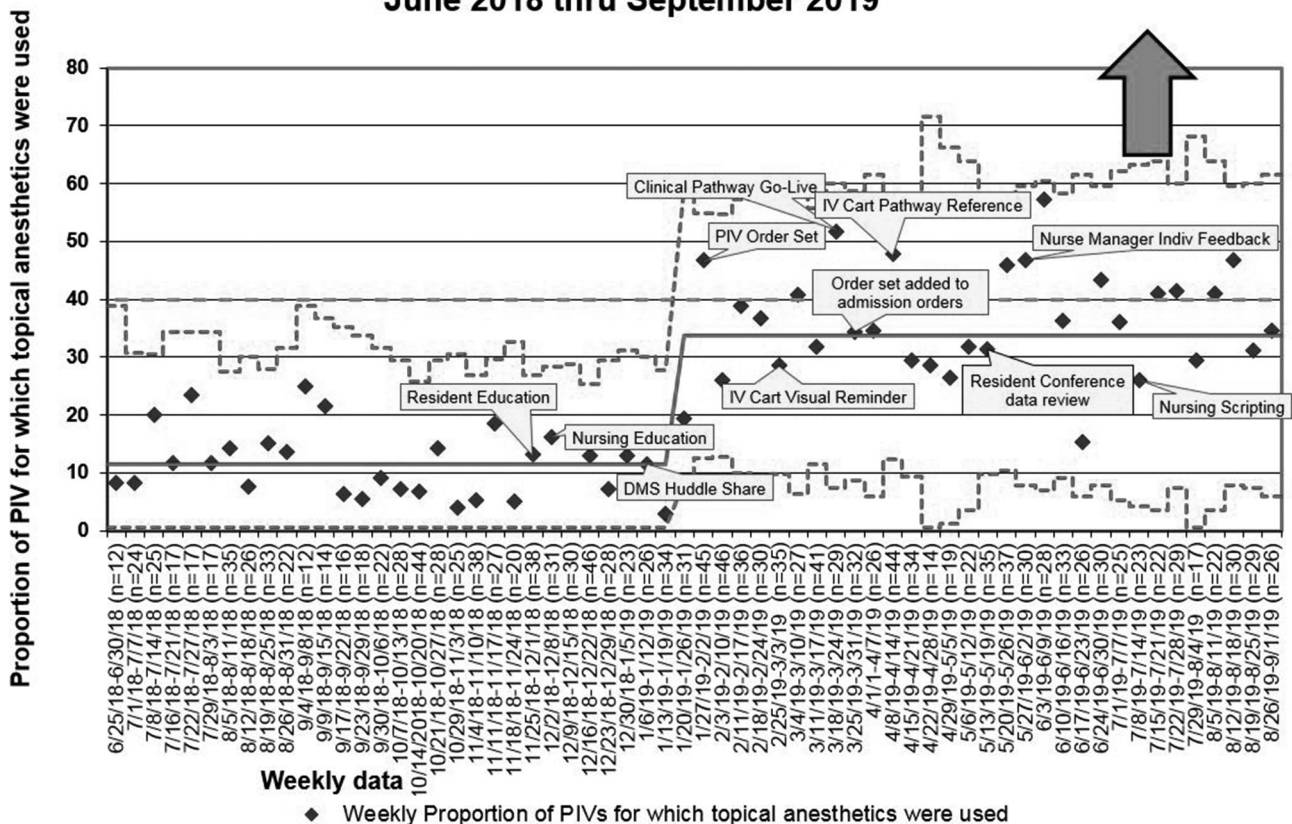
Abstract 10 Figure 2 P-chart. Topical anesthetic use prior to PIV placement from June 2018 to September 2019 increased from a mean of 11% to 34%. A run of eight in a row on the same side of the centerline was used to determine 'out of control signals' to shift mean

Percent of PIV placements with number of attempts documented
July 2018 - September 2019



Abstract 10 Figure 3 P-chart. The percentage of PIV placements with the number of attempts documented from July 2018 to September 2019 increased from a mean of 47% to 60%. A run of eight in a row on the same side of the centerline was used to determine 'out of control signals' to shift mean

Topical Anesthetic Use Prior to PIV Placement
June 2018 thru September 2019



Abstract 10 Figure 4 P-chart. The percent of PIV placement procedures that utilized comfort measures from July 2018 to September 2019 increased from 6% to 13%. A run of eight in a row on the same side of the centerline was used to determine 'out of control signals' to shift mean.

increase topical anesthetic use for peripheral intravenous line (PIV) placement for hospitalized pediatric patients from a mean of 11% to 40% by June 2019.

Methods The project utilized the Model for Improvement. An institutional clinical pathway and PIV order set were developed. Pre-checked orders for anesthetics were added to order sets. Visual reminders for anesthetic and pathway use were placed on IV carts. Run charts were posted weekly on daily management system boards on each medical-surgical floor, and this data was shared at daily nursing huddles, to increase awareness of performance. Nurse managers provided individual feedback to nurses. Nursing scripting examples of how to discuss PIV placement and anesthetics with patients and families were placed on IV carts.

Results Topical anesthetic use for PIV placement increased from a mean of 11% to 34%. Comfort measures during PIV placement increased from a mean of 6% to 13%. PIV procedures with documentation of placement attempts increased from a mean of 47% to 60%.

Conclusions This project has highlighted the importance of pain prevention for needle procedures and initiated culture change. We have nearly reached our goal and PDSA cycles are ongoing to further increase topical anesthetic use.

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11

IMPROVING INTERVENTION USE FOR OPIOID OVERDOSE THROUGH EMERGENCY DEPARTMENT ELECTRONIC MEDICAL RECORD WORK-AIDS

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10.1136/bmjopen-2019-ih1.11

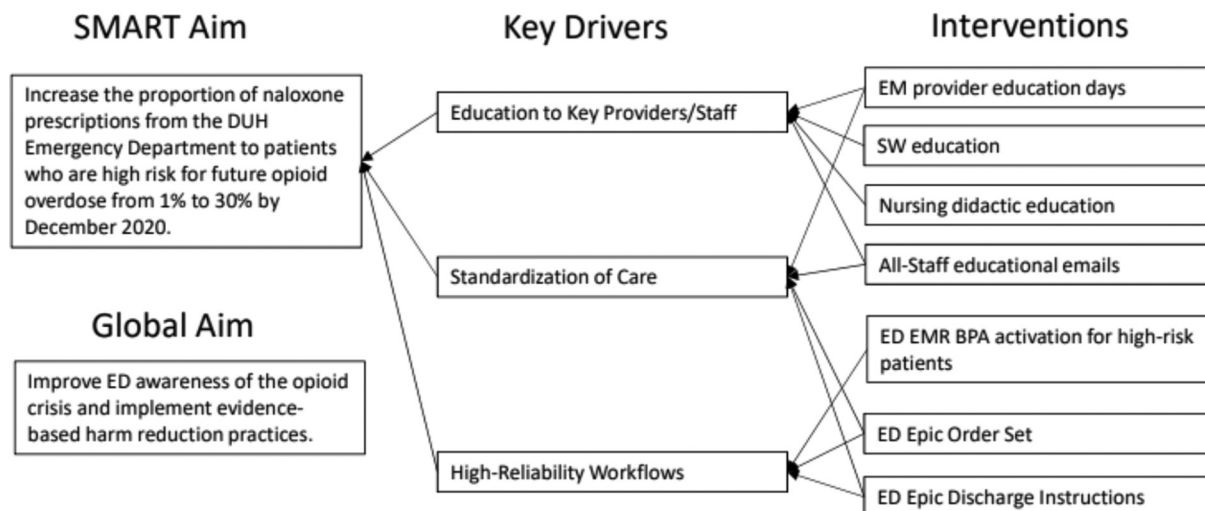
Background Emergency Department (ED) visits for opioid overdose continue to rise. Our global aim is to implement evidence-based harm reduction practices in our large, academic ED, such as facilitating naloxone prescribing through the electronic medical record (EMR) and disseminating resources for outpatient treatment.

Objectives Increase the provision of naloxone prescriptions and community resources to patients at high-risk of opioid overdose upon ED discharge.

Methods To increase naloxone prescribing and provision of community resources to high-risk patients, a model for improvement methodology, a multi-disciplinary team, and prioritization of high-reliability interventions were used. Key drivers and interventions included: didactic lectures to providers, collation of community resources, real-time patient identification through a best practice advisory (BPA) in the EMR, prescriber order sets, and defaulting desired patient education materials (figure 1). Rates of naloxone prescribing and BPA-triggered order set use were tracked over time on statistical control charts (p-charts).

Results The average proportion of high-risk patients who received naloxone prescriptions increased from a baseline of 1.9% to 6.6% after didactic education sessions, and 21.7% after implementation of EMR-based interventions (8 points above centerline, respectively) (figure 2). Since its implementation, 16% of fired BPAs resulted in naloxone order set activation (monthly range: 9–25%).

Conclusions Our findings support that some emergency department providers are willing to prescribe naloxone to patients at risk for opioid overdose, and that prescribing is influenced by highly reliable work-aids built into EMR systems. The spread of similar technology to other care settings may be key to wider provider engagement in mitigating morbidity from opioid overdose.



Abstract 11 Figure 1 Key driver diagram