

# UC San Diego

## Independent Study Projects

### Title

Reducing opioid doses prescribed from a pediatric emergency department

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**Title:** Reducing Opioid Doses Prescribed From a Pediatric Emergency Department

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**Background:** Opioid overdose and abuse have reached epidemic rates in the United States. Legitimate prescriptions are a large source of opioid misuse in adults and adolescents. The goal of this quality improvement project was to reduce opioid exposure from our pediatric emergency department (ED).

**Methods:** Our aim was to reduce the total number of opioid doses prescribed weekly from the ED by 50% within 4 months. A multidisciplinary team reviewed baseline opioid prescribing data and developed a key driver diagram. Plan-Do-Study-Act (PDSA) cycle #1 (Feb-May 2018) interventions were the development of and education on hospital and ED opioid prescribing guidelines, a 5-dose default for ED discharge opioid prescriptions in the electronic medical record, and an educational handout for patients/families prescribed opioids. PDSA cycle #2 (June-Oct 2018) interventions were an educational poster for ED providers and provider specific feedback on individual opioid prescribing practices compared to the group. Primary measure was total opioid doses prescribed weekly from the ED. Process measures were total opioid prescriptions, mean opioid doses per prescription, and opioid prescriptions for unspecified abdominal pain, headache, and viral upper respiratory infection (URI). Balancing measures were phone calls and return visits for poor pain control in patients prescribed opioids and reports of poor pain control in call backs to orthopedic reduction patients. We used statistical process control to determine changes between pre- and post-intervention measures.

**Results:** Total weekly opioid doses decreased from 153 (UCL 190, LCL 116) to 35 (UCL 53, LCL 18) post-intervention and equivalently when accounting for ED census. Total weekly opioid prescriptions decreased from 12.8 (UCL 23.5, LCL 2.1) to 4.4 (UCL 10.7, LCL 0.2) and weekly prescriptions for unspecified abdominal pain, headache, and viral URI decreased from 0.7 (UCL 3.1, LCL 0) to 0 (UCL 0, LCL 0). Mean opioid doses per prescription did not decrease with no special cause variation. Phone calls and return visits in patients prescribed opioids did not increase. There was one report of poor pain control amongst 69 orthopedic reduction patients called back post-intervention.

**Conclusion:** We decreased total opioid doses prescribed weekly from the pediatric ED by 77% while minimizing return visits and

reports of poor pain control.