

Improving naloxone co-prescribing for patients on high dose opioids at hospital discharge

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OVERVIEW

- Terms
 - Oral Morphine Milligram Equivalent (MME)
 - Best Practice Alert (BPA)
- Risk of opioid overdose
- Baseline data
- Intervention
- Findings
- Dissemination

THE PROBLEM

- ~130 Americans die every day from an opioid overdose
- 50-100 MME per day ↑ overdose risk 1.9 to 4.6 times
- >100 MME ↑ overdose risk 2.0 to 8.9 times
- Outpatient focus on prevention; yet many opioids prescribed in hospital

Opioid	50 MME	100 MME
Oxycodone	33.5 mg	67 mg
Hydrocodone	50 mg	100 mg
Methadone	17 mg*	33.5 mg*
Fentanyl	21 mg	42 mg

*Variable by study and by MME

https://www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose-a.pdf

NALOXONE

- CDC & FDA recommend naloxone co-prescription for $MME \geq 50$
- Opioid antagonist that can be used to temporarily reverse opioid overdose effects (apnea)
- When naloxone and overdose education were provided to communities, overdose deaths decreased
 - Rate ratios 0.73 low implementer, 0.54 high implementer

BMJ (Clinical research ed.). 2013;346:f174. CDC <http://wonder.cdc.gov>

OBJECTIVES OF INTERVENTION

- Increase the number of naloxone prescriptions at the time of discharge:
 - By 20% for patients on \geq MME of 100
 - Within the 6 months following the implementation of an electronic alert through the hospital electronic medical record

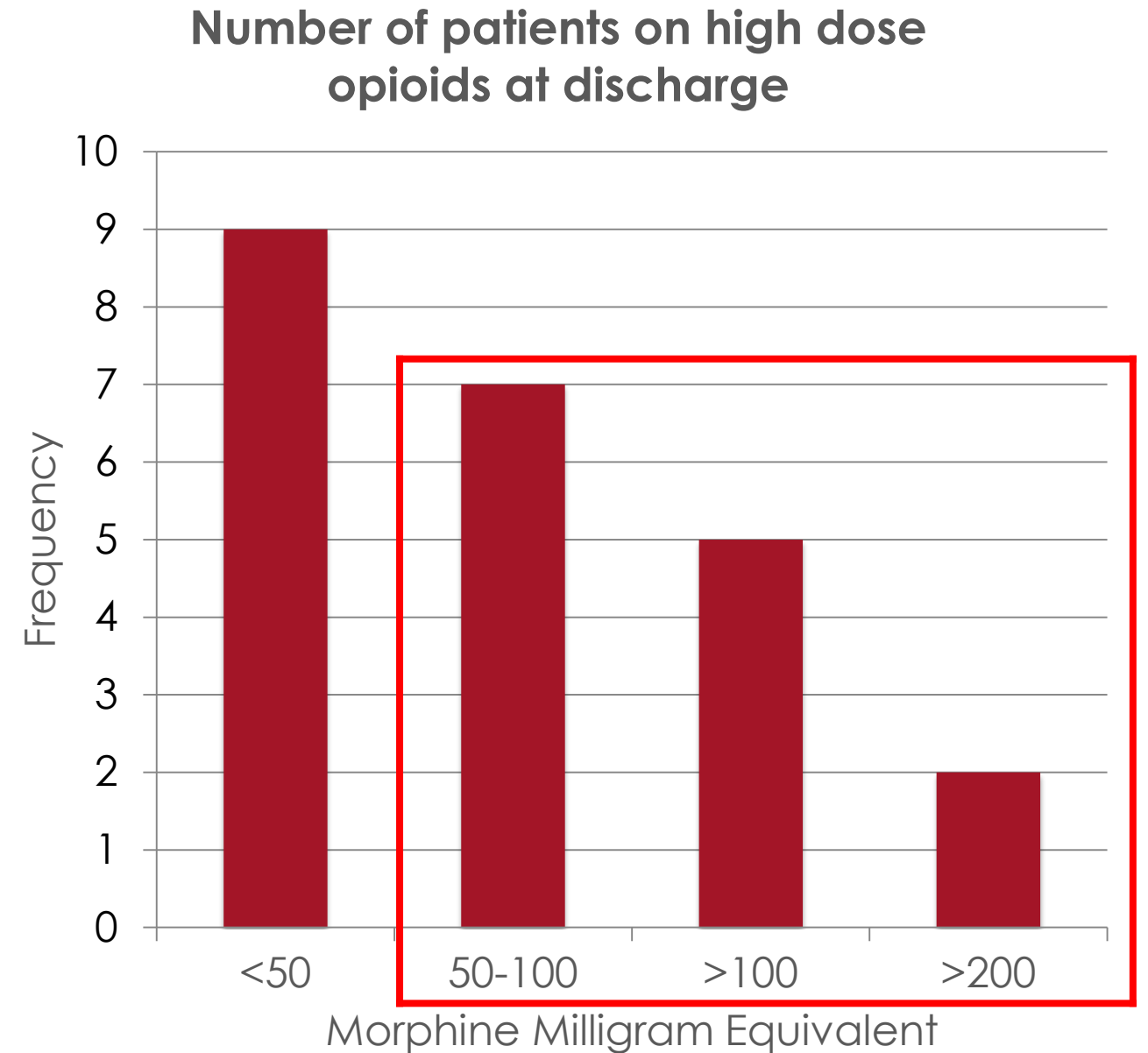
SETTING & PATIENTS

- Single, tertiary care academic hospital
- Single group of academic hospitalist physicians, PAs and NPs
- Hospitalized adult inpatients



BASELINE DATA

- August 2017
- 79 prescriptions for oxycodone
- 8 patients with 2 prescriptions
- Chart review of 23
- Average MME 110
- Highest MME 625, lowest 22.5
- 7 MME \geq 100
- 0 discharged with naloxone



INTERVENTION

- BPA built into discharge order set
- Fires on patients with a *new* prescription for ≥ 100 MME (assuming mean dose range)
- Linked to order intranasal naloxone
- Pilot to 3 teams 9/2018
- Broadened to 2 units 11/2018
- Pharmacy component

BestPractice Advisory - Testpatient,Opioid1

Patient's max oral morphine equivalence (OME) is 329.00 mg/day. Consider Naloxone.

Daily Average OME (mg/day)

Consider offering naloxone. Max oral morphine equivalence (OME) is ≥ 100 mg/day, and no active naloxone prescription on record.

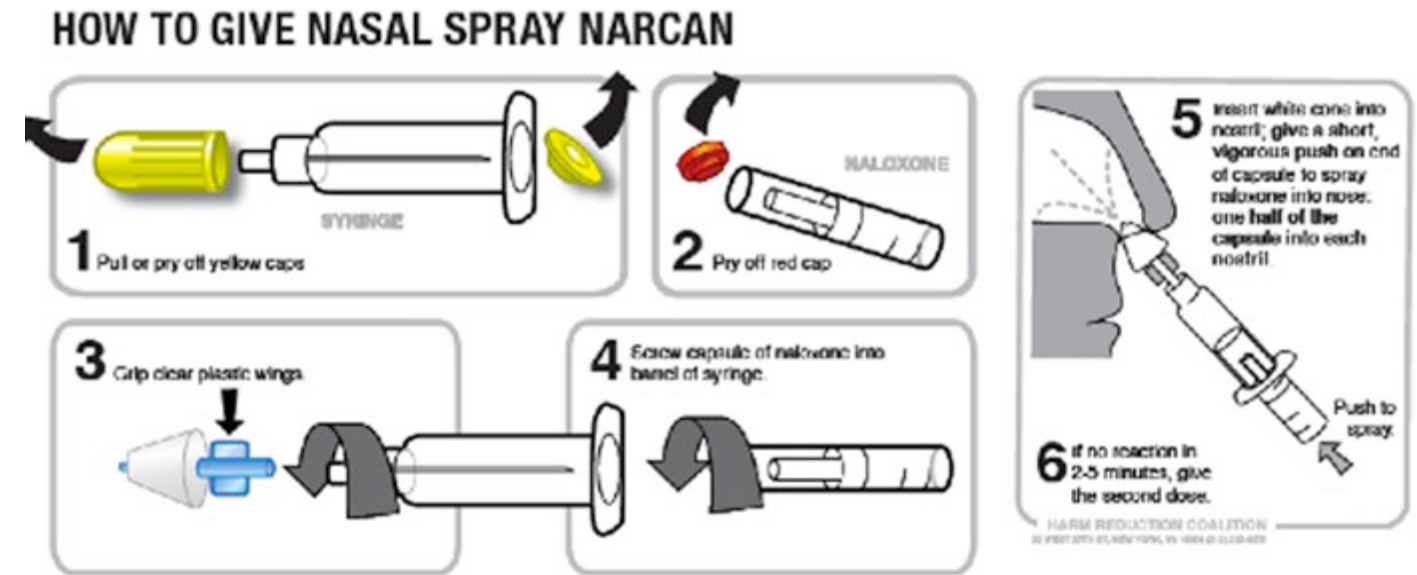
Active Opioid Rx	Max OME/day*
New Oxycodone Hydrochloride 15 MG Oral Tablet ⌵	135 mg
FENTANYL CITRATE 200 MCG BU LPOP ⌵	104 mg
⚠ Verify taking; Rx may have expired	
HYDROCODONE-ACETAMINOPHEN 10-325 MG PO TABLET ⌵	90 mg
⚠ Verify taking; Rx may have expired	
⚠ Not adding OME for presumed redundant Rxs with start dates of 02/07/18 and 03/07/18.	
Total Maximum OME/Day	329.00 mg

*Max OME (see details) = max amount patient may take on a given day according to Sig, even if patient runs out of med early.

[CPG opioid Rx guideline](#)
Source: [CDC opioid Rx guideline -- recommendation #8](#)

MEASURE OF SUCCESS

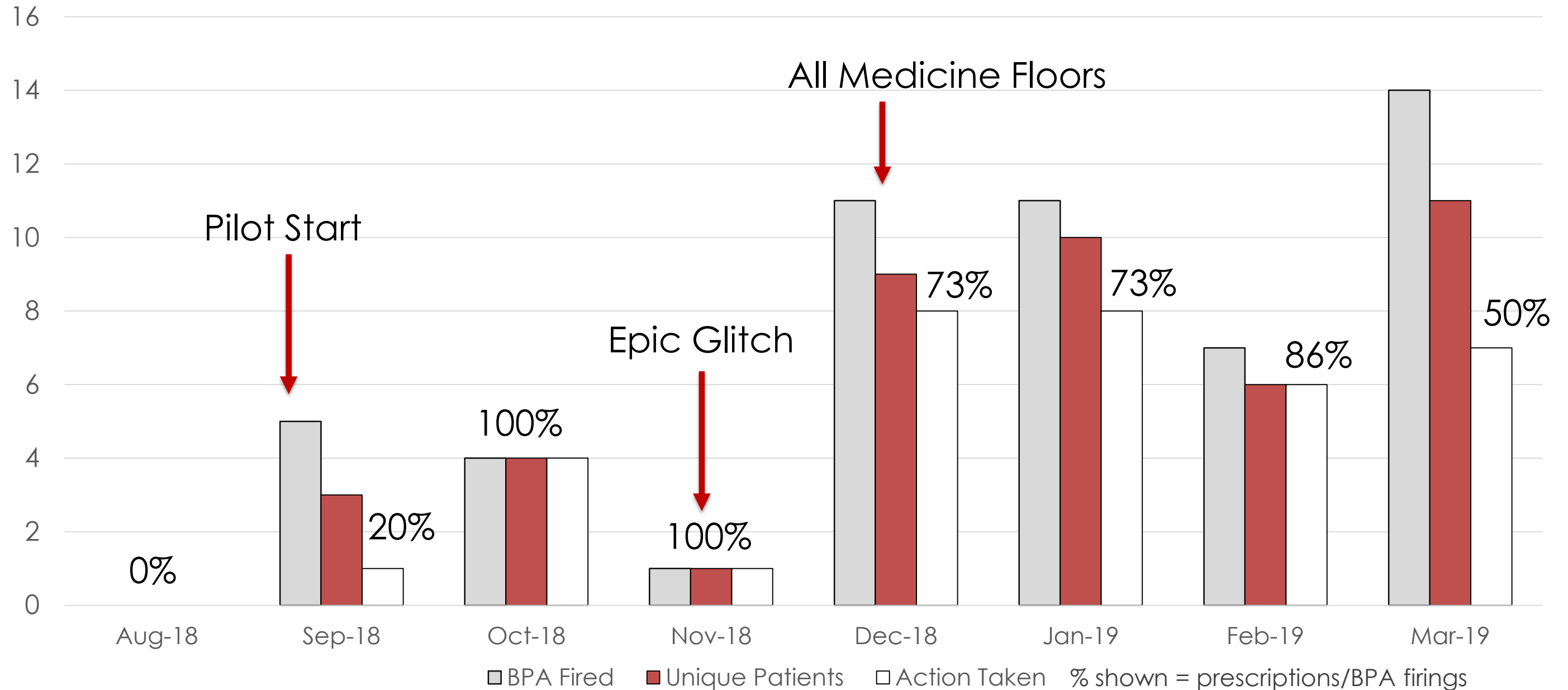
- Percent of patients with ≥ 100 MME given naloxone co-prescription before and after BPA implementation



Graphics: The Noun Project; harmreduction.org

FINDINGS TO DATE

Naloxone BPA Firing & Results



KEY LESSONS FOR DISSEMINATION

- Increased naloxone prescriptions for patient on high dose opioids
- Adaptable strategy for hospitals using Epic™ as their electronic record
- Requires provider education & pharmacy buy in for program success
- Prescription ≠ drug obtained



SUMMARY

- MME ≥ 100 at higher risk for accidental opioid overdose
- Low risk, low cost intervention to address this
- BPA prompting providers at MME ≥ 100 increased naloxone co-prescription
- Next steps: Broaden to other units, fire on continued prescriptions, collaboration, overdose ICD-10 codes

Thank you!
Questions?

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