Emergency Buprenorphine Starts

Andrew Herring, MD

CA BRIDGE

ALAMEDA HEALTH SYSTEM

HIGHLAND EMERGENCY

DEPARTMENT OF EMERGENCY MEDICINE

ALAMEDA HEALTH SYSTEM - HIGHLAND HOSPITAL

Session Overview

My Experience

Bup pharmacology

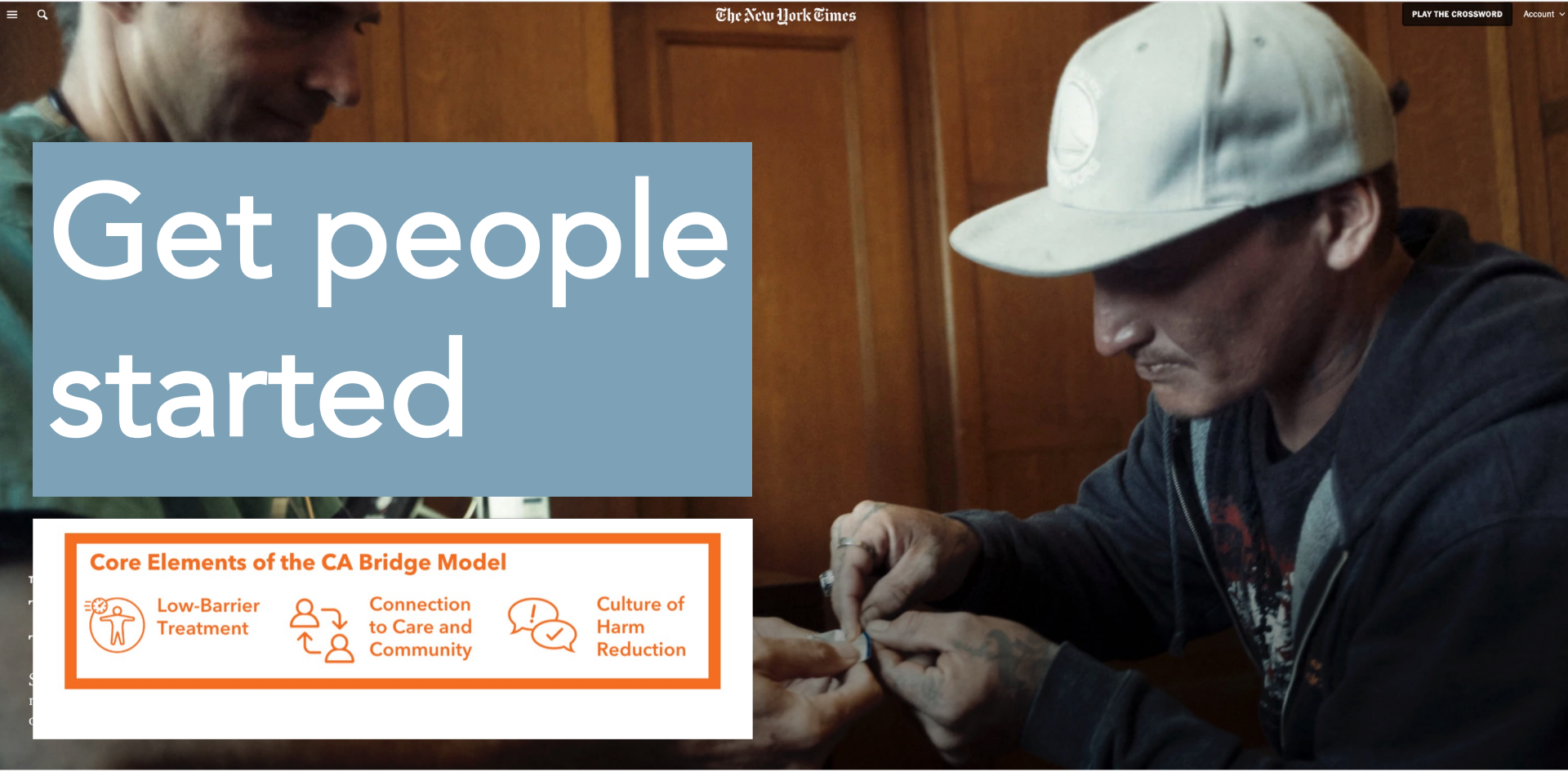
Induction

Treating precipitated withdrawal

Tying it together with Navigators

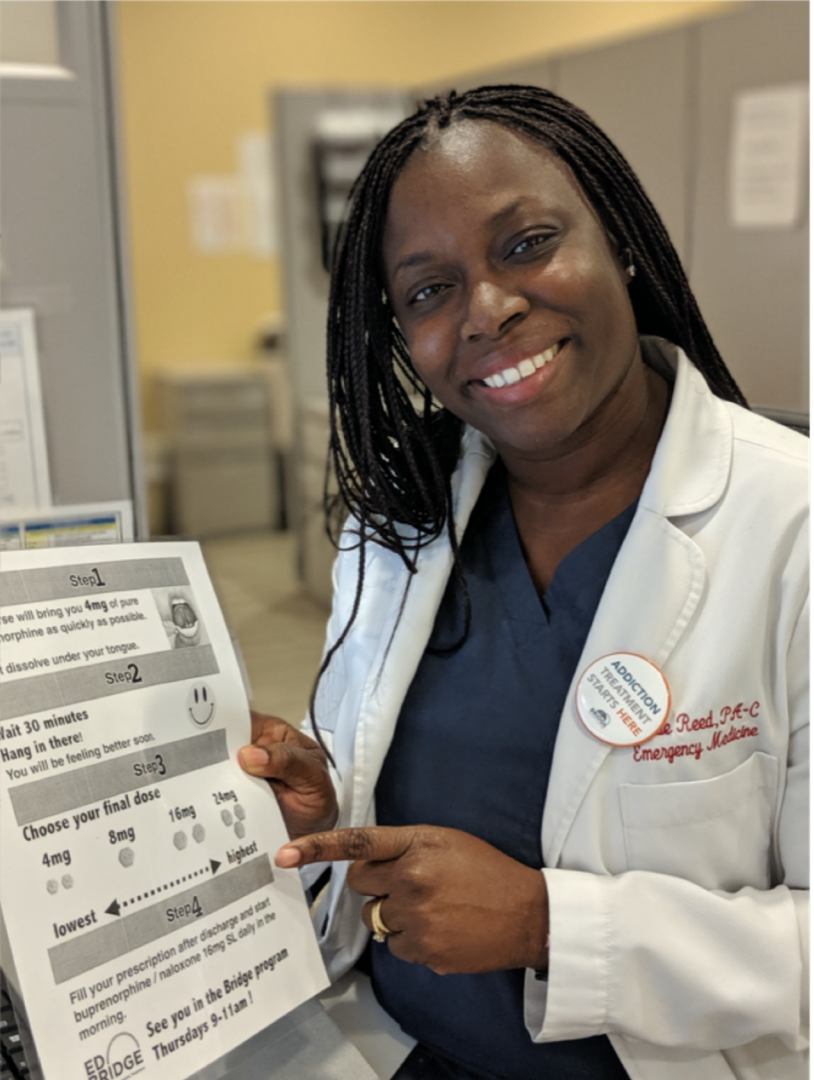

Support decriminalization of drug use
We are the Drug Policy Alliance.
Photo: Brian L. Frank for The New York Ti


We all must become harm-reductionists
ALAMEDA
PREVENT
Biohazard Infectious Waste
SHARPS CONTAINER


The New York Times
PLAY THE CROSSWORD
Account
Get people started
Core Elements of the CA Bridge Model
Low-Barrier Treatment
Connection to Care and Community
Culture of Harm Reduction

“No Shit Science”

Drug users make rational decisions



Have fun
Enjoy the work

New York Tines, 1989

"Crack has turned emergency medicine at Highland General Hospital here into a nightmare, a scene of chaos and despair that is crushing the spirits of all who encounter it."

Urban Emergency Rooms: A Cocaine Nightmare

The New York Times/Terrence McCarthy

Emergency workers with a man suffering from acute cocaine intoxication at Highland General Hospital in Oakland, Calif., where the patient was treated for 16 hours in the emergency room. Many hospitals nationwide are being overwhelmed by drug-related emergencies.

By JANE GROSS
Special to The New York Times

OAKLAND, Calif., Aug. 5 — Crack has turned emergency medicine at Highland General Hospital here into a nightmare, a scene of chaos and despair that is crushing the spirits of all who encounter it.

"All we're doing is picking the bones," said Dr. Patrick Connell, the interim chief of the emergency medical department. "The work is postmortem."

A recent study by the National Institute for Drug Abuse found hospitals around the country reporting a dramatic increase in cocaine-related emergencies.

The burden is clearly heaviest in places like East Oakland, Watts in Los Angeles and the South Bronx and Bedford-Stuyvesant in New York, where doctors say perhaps half their emergency patients are drug users.

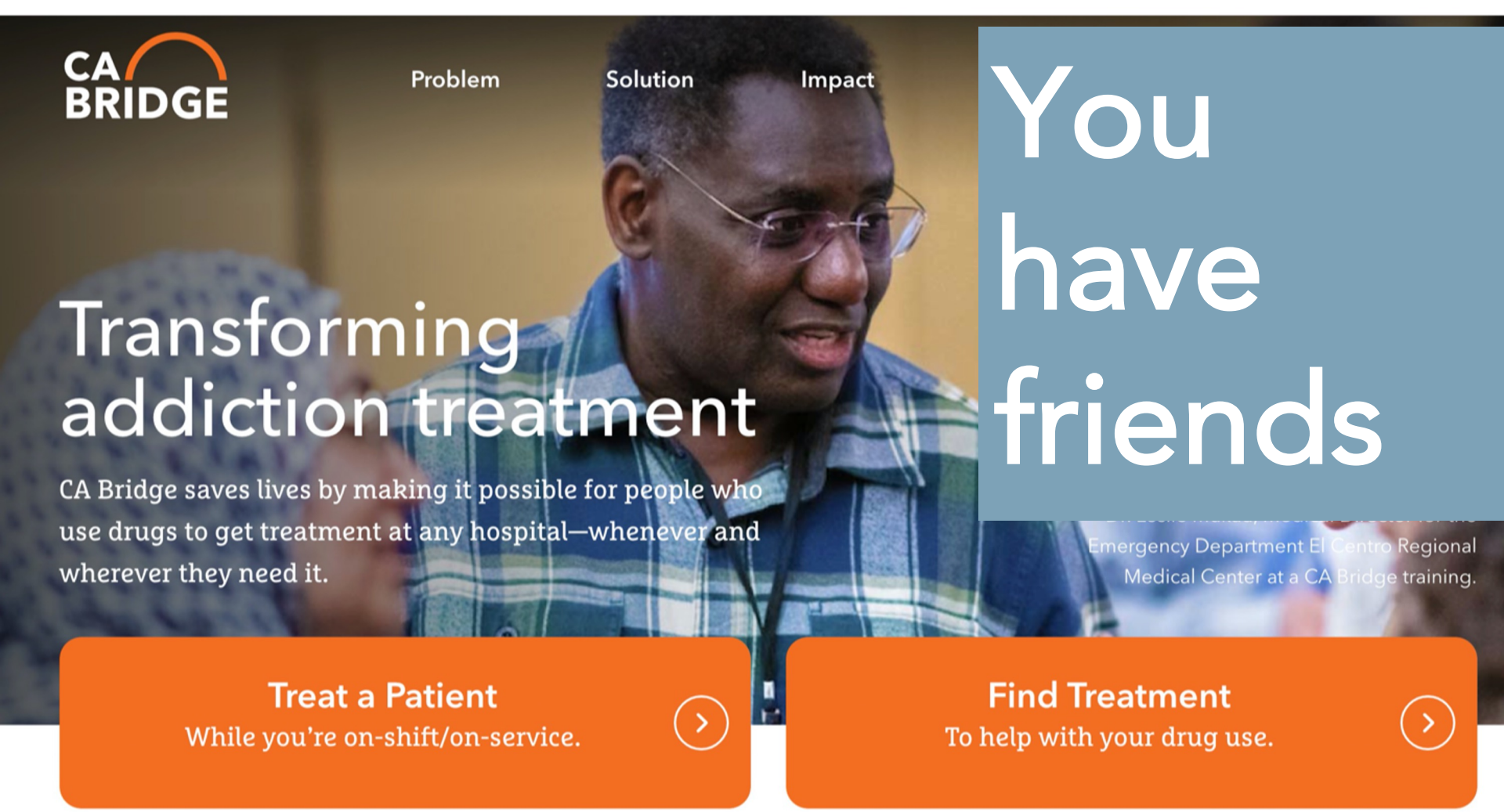
Typical of the patients seen in inner-city emergency rooms is a man who arrived here by ambulance the other day, suffering from acute cocaine intoxication.

He thrashed uncontrollably, threatening to yank his arms and legs from

to the gurney. He fought off three police officers, two paramedics, a doctor and a nurse trying to tie him down with a coiled sheet. He cursed, brayed and spat at them until they covered his face with a surgical mask.

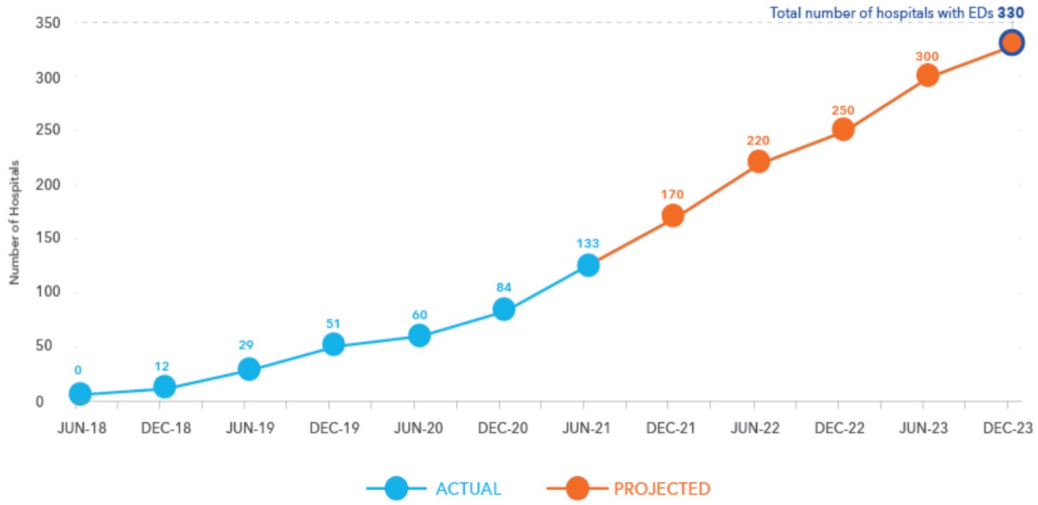
The man spent 16 hours in the emergency room, medicated, tested and observed by physicians, psychiatrists and nurses who knew from the first that there was little they could do for him, medically or psychologically. His care cost thousands of dol-

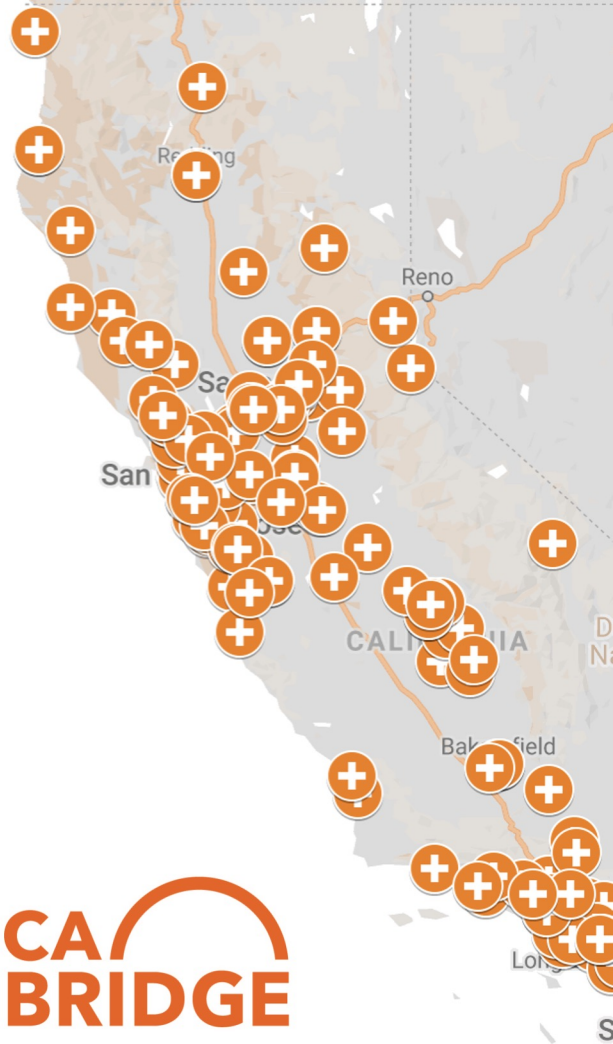
Continued on Page 20, Column 1



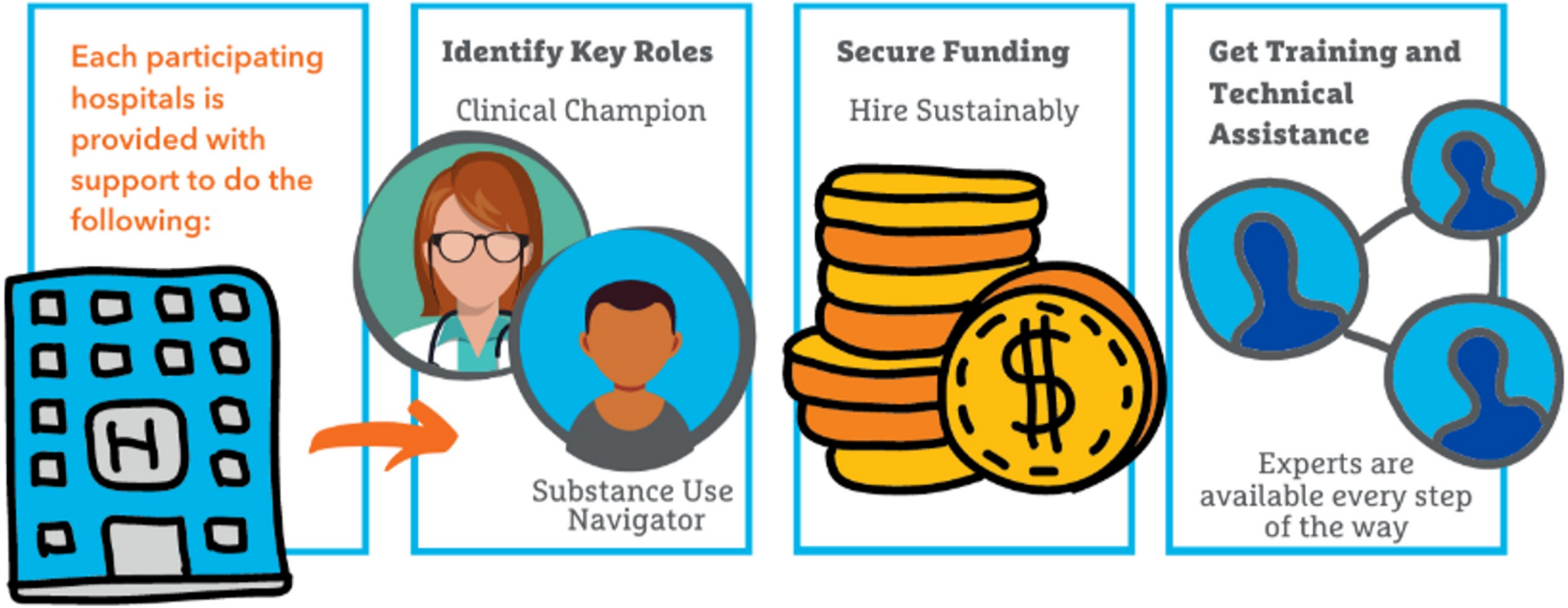
You have friends

Update:
160 CA Bridge Hospitals in California





How a diverse group of hospitals achieved rapid large-scale implementation of medication for opioid use disorder



CA Bridge helps hospitals implement the standard of care needed to support patients with substance use disorders. Together, a clinical champion and a substance use navigator bridge gaps in traditional treatment, linking patients to ongoing care.

The CA Bridge Model in Action

The clinical champion provides assistance to staff so they can support the patient with medication

The substance use navigator offers the patient guidance and linkage to ongoing treatment

The patient gets evidence-based care with better outcomes, and lower readmissions

Treatment starts here. Treatment starts now. CABridge.org

Large Scale Impact

94,574

SUN encounters

76,267

patients identified with OUD

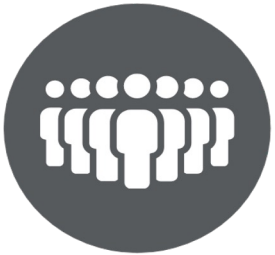
32,204

encounters where MAT was prescribed or administered

SUN: Substance Use Navigator
OUD: Opioid Use Disorder
MAT: Medication for Addiction Treatment

Lives lost from untreated OUD

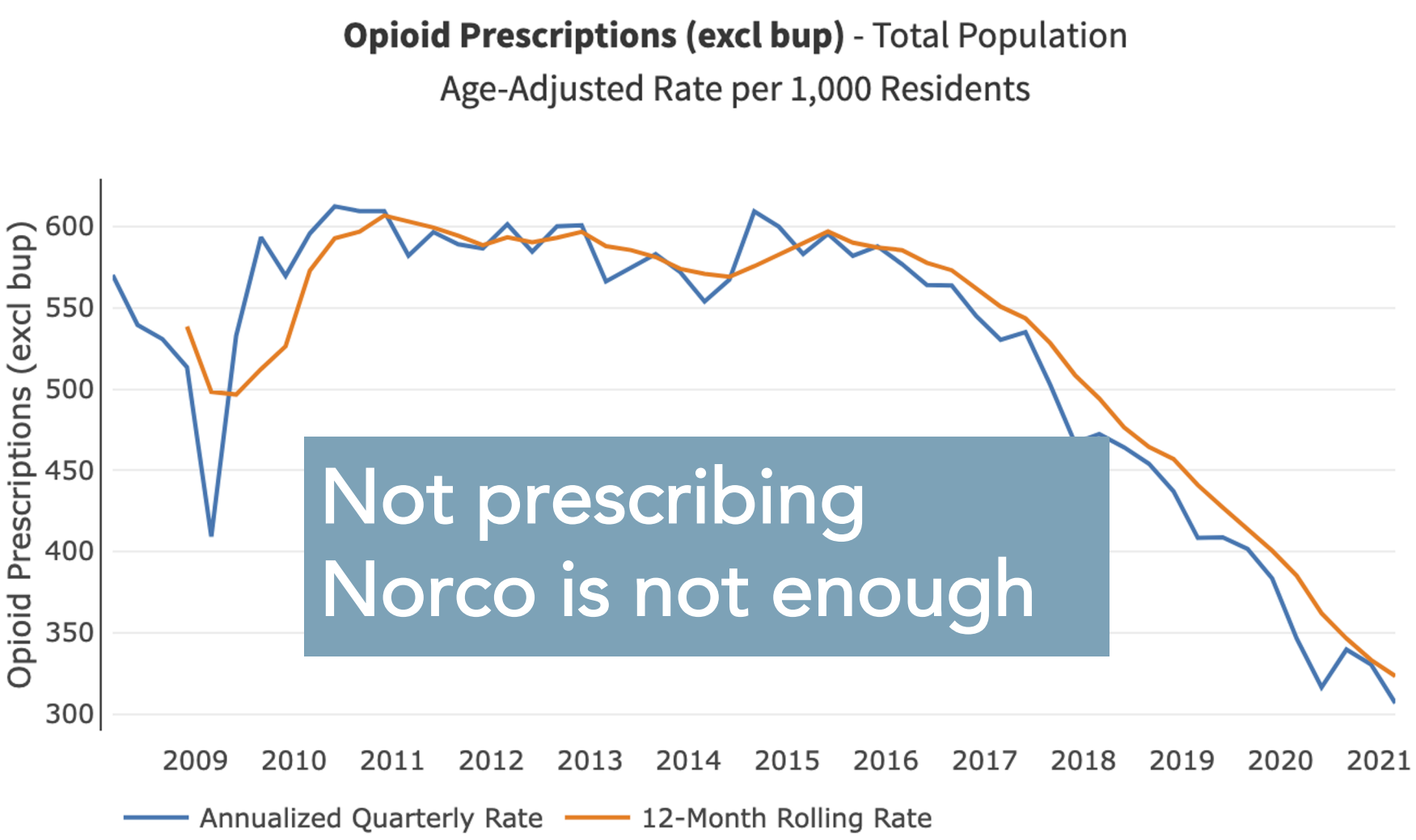
100,000+
people died from drug overdose in 2021 (1)



1.6 million
People had an opioid use disorder in the past year (2)

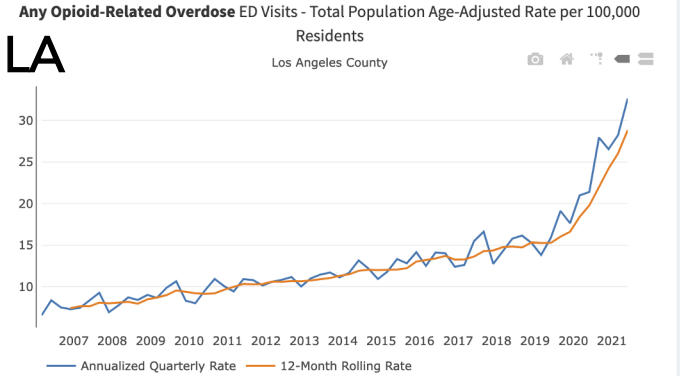
Sources

(1) National Center for Health Statistics, 2021. https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2021/20211117.htm
(2) 2019 National Survey on Drug Use and Health, 2020. https://www.hhs.gov/opioids/about-the-epidemic/index.html

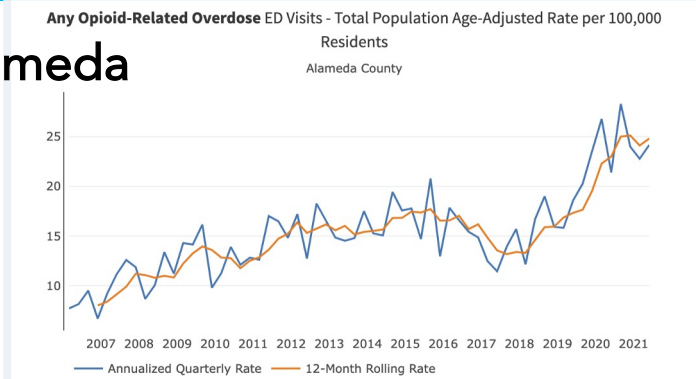

Opioid Prescriptions (excl bup) - Total Population
Age-Adjusted Rate per 1,000 Residents
Opioid Prescriptions (excl bup)
600
550
500
450
400
350
300
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Not prescribing
Norco is not enough
Annualized Quarterly Rate
12-Month Rolling Rate

Huge increases Overdose deaths here in California

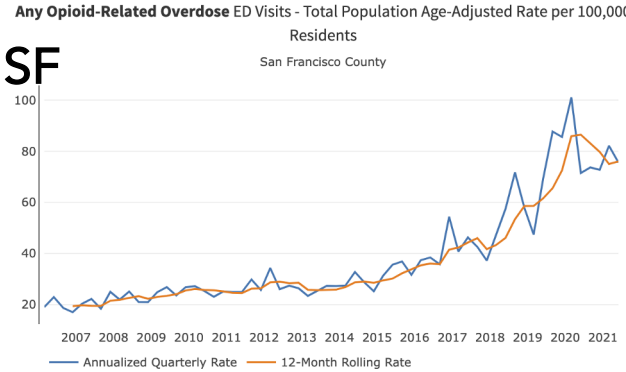
LA



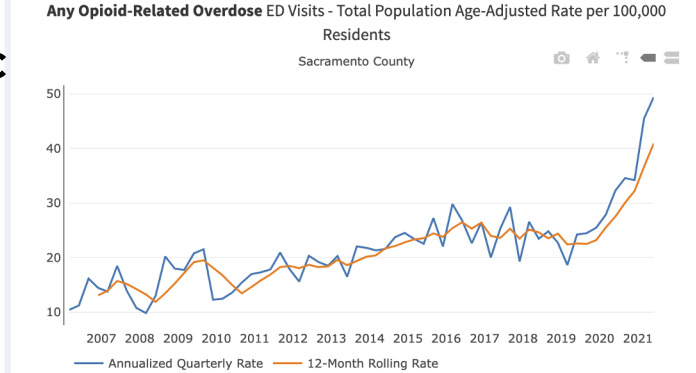
Alameda



SF



Sac




The New York Times
PLAY THE CROSSWORD
Account
BUP is a life preserver
THE TR
Th
That's Very Rare.
Some hospital emergency departments are giving people medicine for withdrawal, plugging a hole in a system that too often fails to provide immediate treatment.

Recognize that OUD is an EMERGENCY AND, this is our JOB

One-Year Mortality of Patients After Emergency Department Treatment for Nonfatal Opioid Overdose

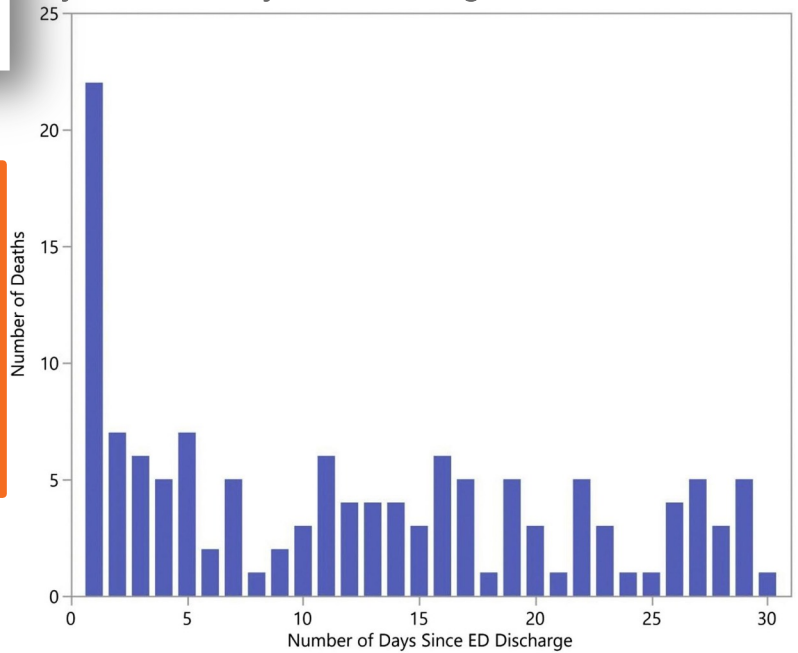
Scott G. Weiner, MD, MPH[a,*], Olesya Baker, PhD[a], Dana Bernson, MPH[b], Jeremiah D. Schuur, MD, MHS[c]

Study of patients treated in Massachusetts

EMS naloxone patients
15% dead at 12 months
8.3% in the first 3 days

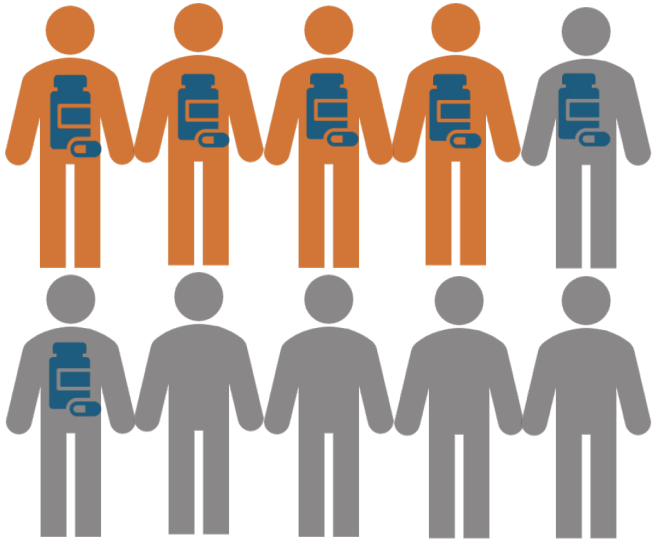
died within the first 2 days

Number of deaths after ED treatment for nonfatal overdose by number of days after discharge in the first month (n=130)



Source: Weiner, Scott, et al.. *One-Year Mortality of Patients After Emergency Department Treatment for Nonfatal Opioid Overdose.* Annals of Emergency Medicine. April 2, 2019.

People want our help



For every 10 patients with OUD

6 received treatment

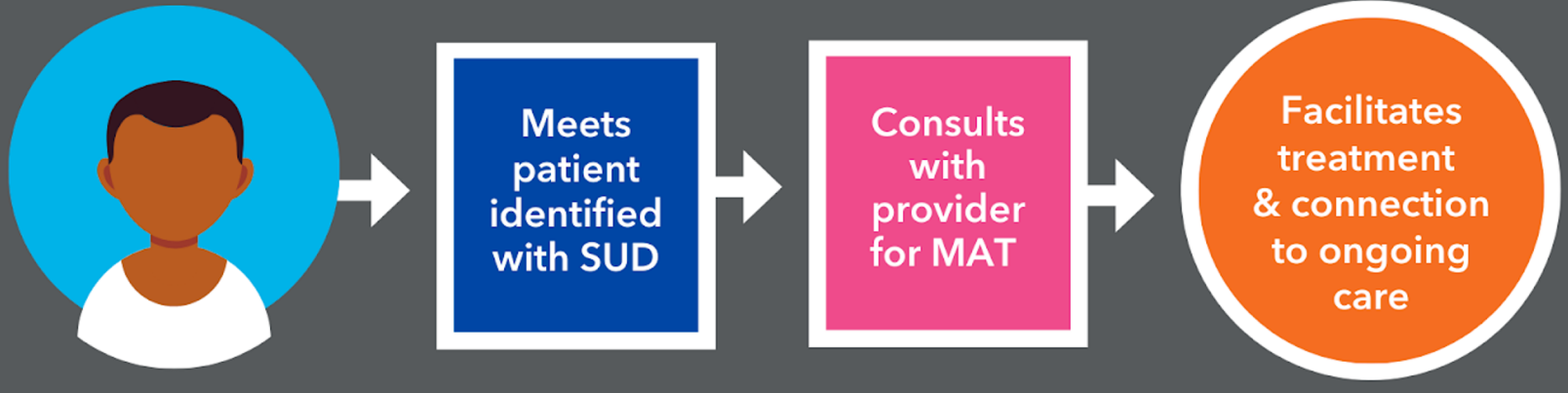
4 engaged in follow-up MAT care

OUD Opioid Use Disorder
MAT Medication for Addiction Treatment

Proportion of patients across all reporting CA Bridge sites (n = 52) as of June 30, 2020

The Substance Use Navigator

guides patients with acute substance use disorder (SUD) through the emergency department and beyond.



GOAL: Ensure that all people with substance use disorder receive 24/7 high-quality care in every California health system.

JAMA Network | Open

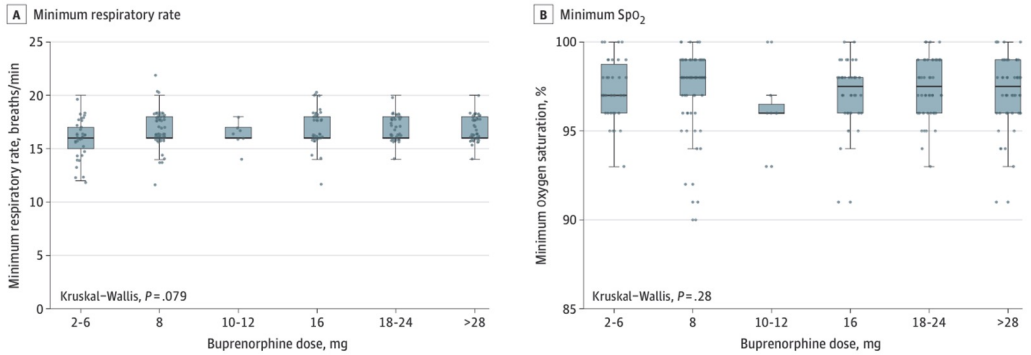
Buprenorphine is VERY safe

Original Investigation | Substance Use and Addiction

High-Dose Buprenorphine Induction in the Emergency Department for Treatment of Opioid Use Disorder

Andrew A. Herring, MD; Aidan A. Vosooghi, MS; Joshua Luftig, PA; Erik S. Anderson, MD; Xiwen Zhao, MS; James Dziura, PhD; Kathry
Ryan P. McCormack, MD, MS; Andrew Saxon, MD; Gail D'Onofrio, MD, MS

Figure 2. Minimum Respiratory Rate and Oxygen Saturation (SpO_2) Following Initial Dose by Buprenorphine Dose

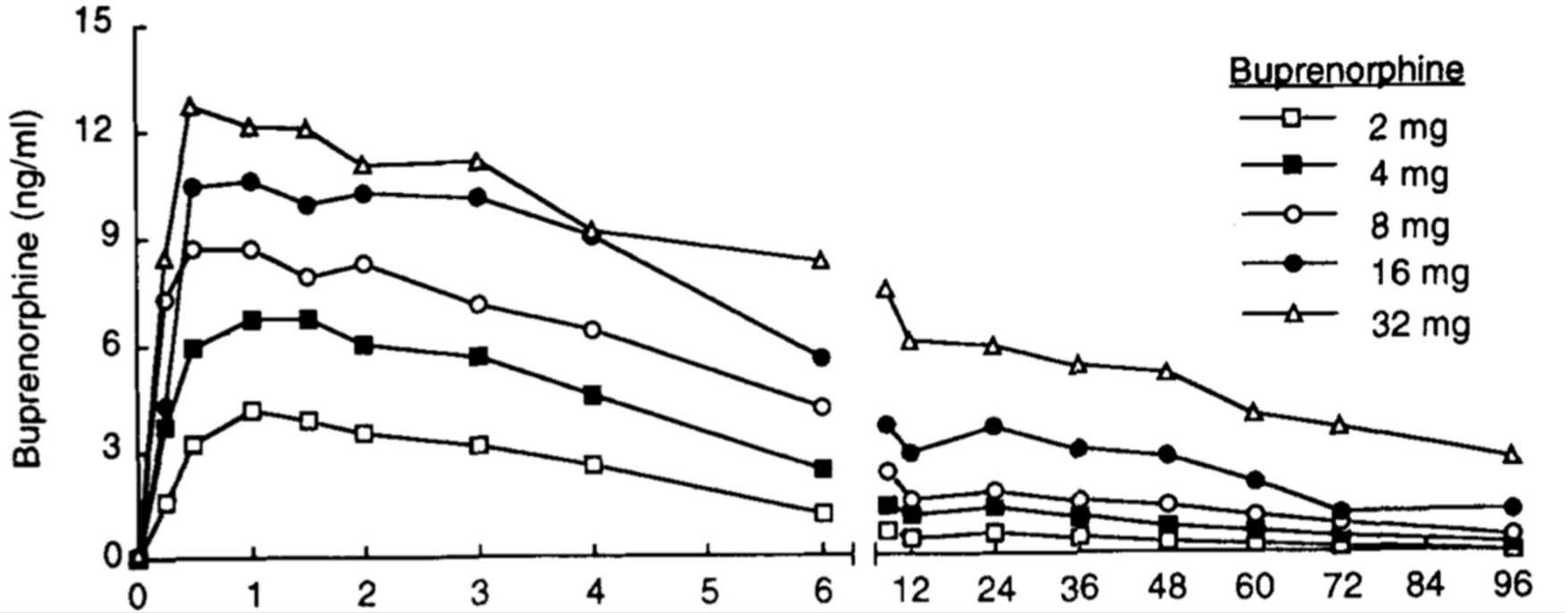


Boxes correspond to 25th and 75th percentiles, with lines in boxes denoting medians. Dots denote outliers. Error bars denote 95% CIs. Kruskal-Wallis test compares distributions of respiratory rate and oxygen saturation across buprenorphine dose categories.

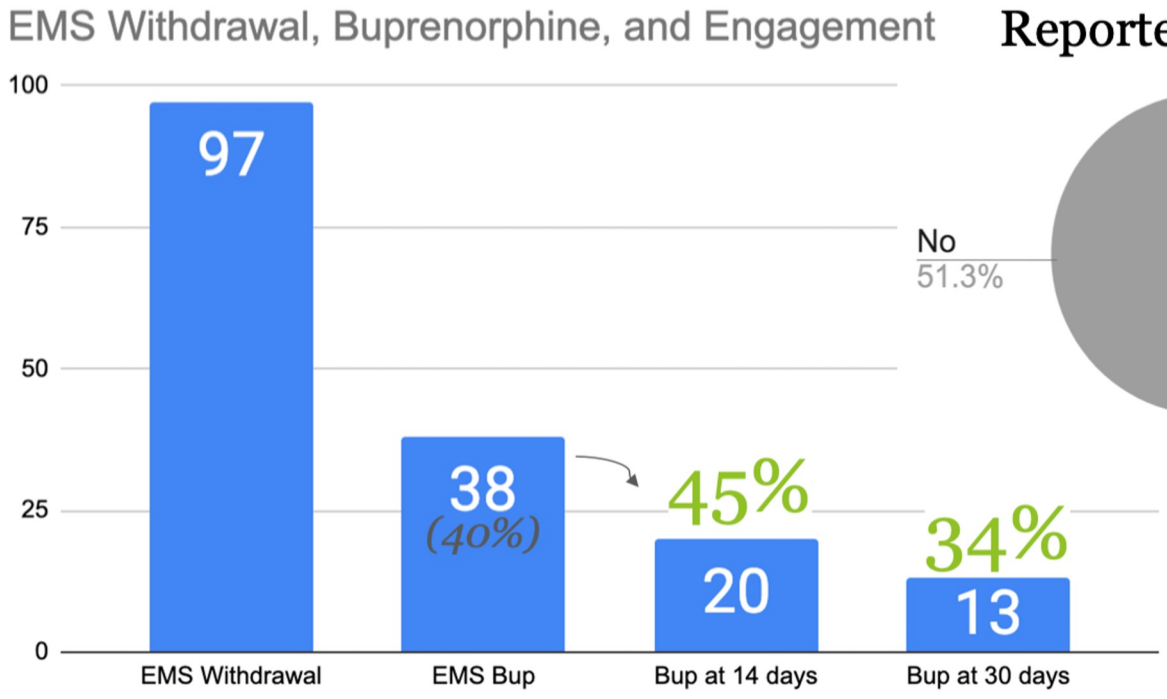
Dose categories
Mg (*N*)

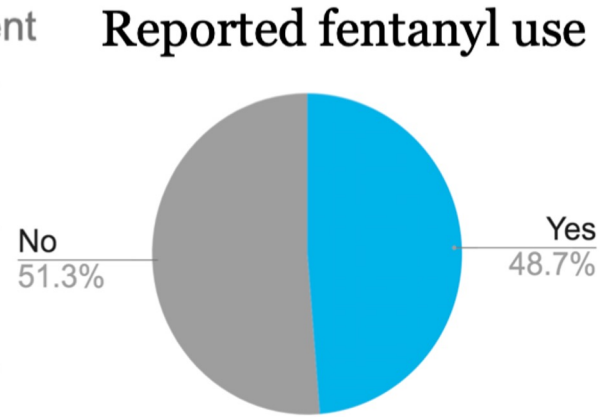
2-6 (55)
8 (136)
10-12 (22)
16 (106)
20-24 (122)
≥ 28 (138)

Loading Bup makes it Last



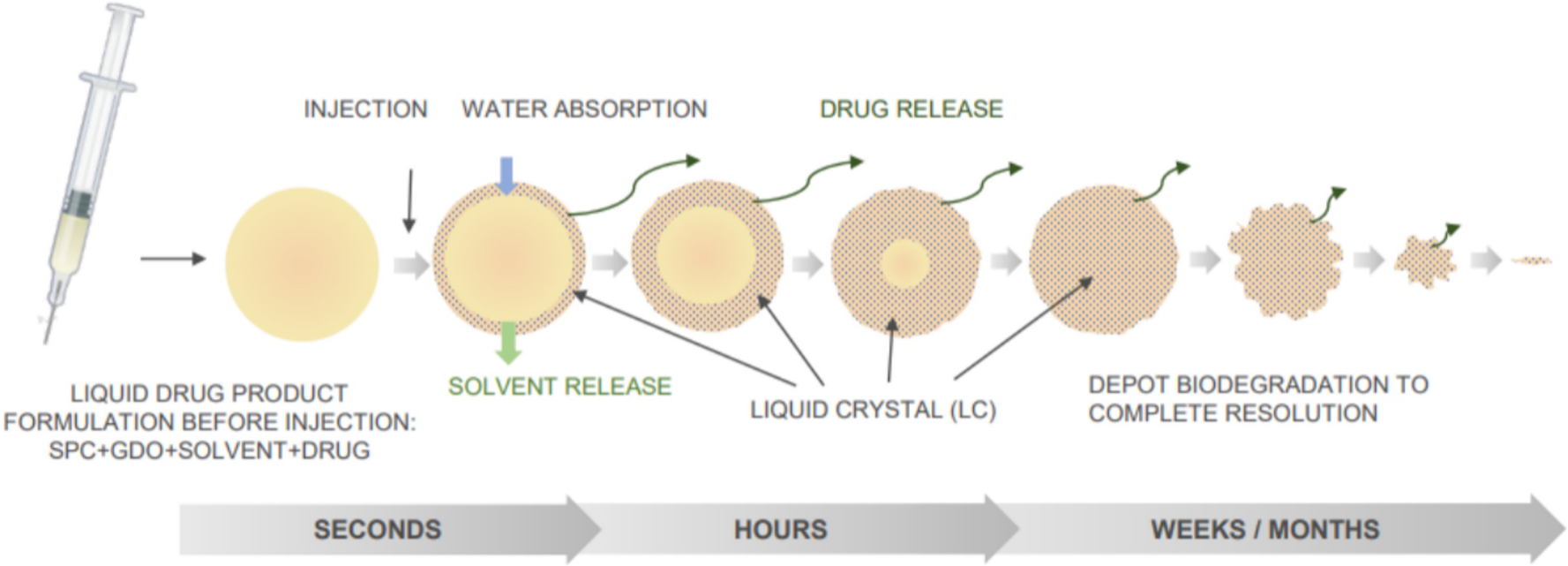
Post Naloxone is perfect for Bup





CA BRIDGE

Long-acting Bup lasts 30 days!



Most people using Fentanyl start buprenorphine without precipitated withdrawal

CA Bridge Fentanyl FAQ

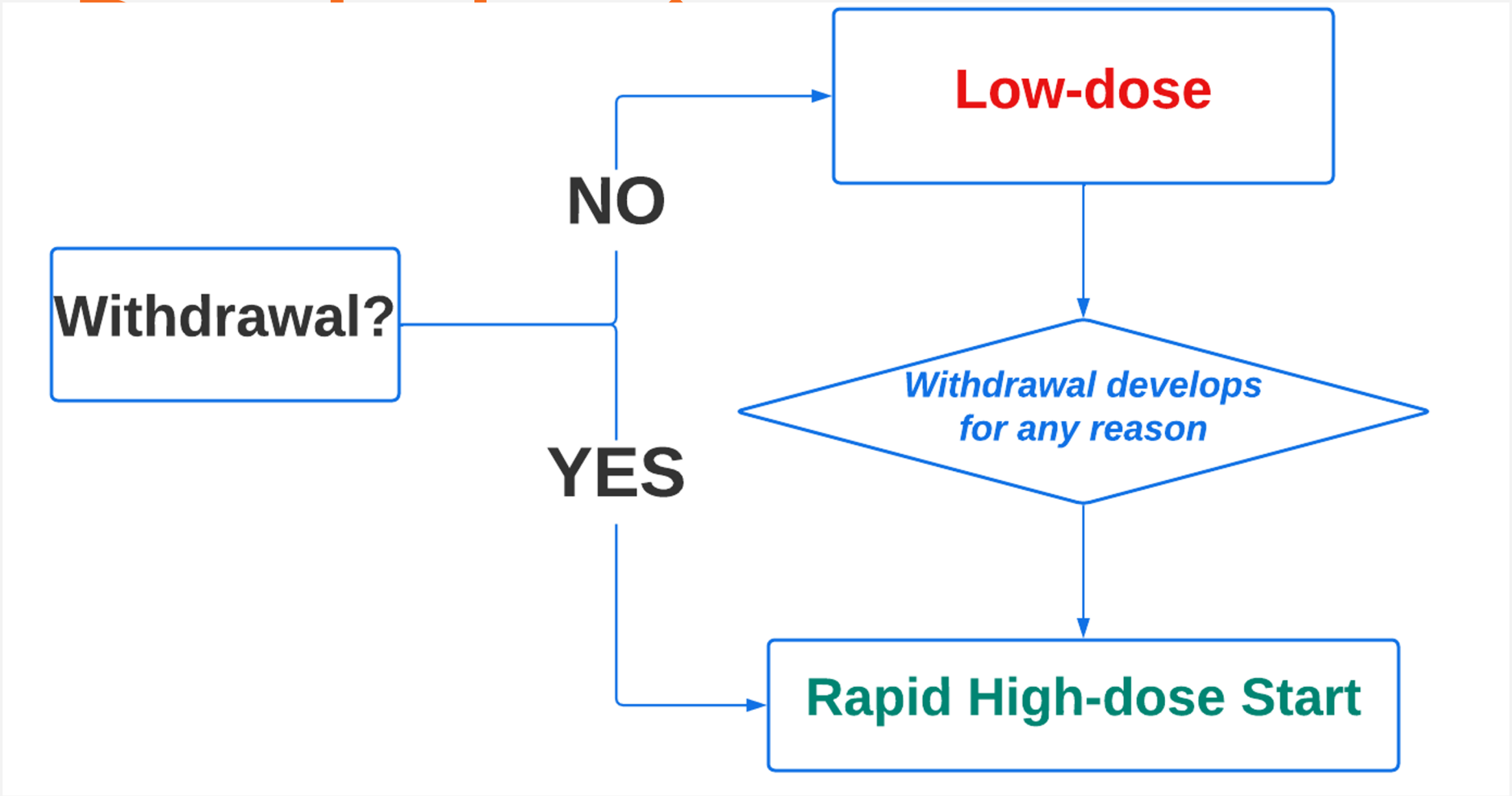
CA BRIDGE

D'Onofrio et. al, unpublished abstract

AND

D'Onofrio G, Fiellin D. Emergency Department-INitiated bupreNOrphine and VAlidaTIOn Network Trial (ED-INNOVATION) (NIH HEAL Initiative). Presented at: Second Annual NIH HEAL Initiative Investigator Meeting; May 17, 2021; Virtual Meeting.

Buprenorphine Induction


Low-dose
NO
Withdrawal?
Withdrawal develops for any reason
YES
Rapid High-dose Start

Buprenorphine (Bup) Emergency Dept. Quick Start

CA BRIDGE

Abstinence and onset of withdrawal

Objective uncomplicated opioid withdrawal*

NO → **Rx self-directed ("home") start:** wait for severe withdrawal then start with 8 mg. Rx per "Discharge" box below

Need to get your X waiver? Scan this QR code!

Administer 8-16mg bup SL

1 HOUR

Withdrawal improved?

NO

YES

Administer 2nd dose
Additional 8-16 mg SL bup for total daily dose of 16-32 mg

Discharge

- **If prescriber has X-waiver:** Prescribe sufficient Bup/Nx until follow-up ie buprenorphine/naloxone 8/2 mg films 2-4 films qday #32-64, 0 refills (may Rx more prn). Notes to pharmacy "bill Medi-Cal FFS, ICD 10 F11.20, X DEA # ___"
- **If no X-waiver:** Use loading dose up to 32mg for long effect and give rapid follow up (<72 h)
- **Dispense naloxone** from the ED (not just prescribed): naloxone 4mg IN spray #2
- Document Opioid Withdrawal and/or Opioid Use Disorder as a diagnosis

If worse or no improvement consider:
Undertreated withdrawal: occurs with lower starting doses and heavy tolerance; improves with more bup (addl 8-16 mg)
Other substance intoxication or withdrawal: stimulant intoxication, alcohol/benzo/xylazine/GHB withdrawal. Continue bup, manage additional syndromes.
Bup side-effect: nausea, headache, dysphoria. Continue bup, treat side-effects with supportive medications.
Other medical/psychiatric illness: anxiety, sepsis, influenza, DKA, thyrotoxicosis, etc. Continue bup, manage underlying condition.

If sudden/signficant worsening, consider precipiated withdrawal:
Sudden, significant worsening of withdrawal after bup or full antagonist (e.g. naloxone)--see box below

We encourage shared decision making with patient for dosing.

*** Opioid Withdrawal:**

At least one clear objective sign (prefer ≥ 2): tachycardia, mydriasis, yawning, rhinorrhea, vomiting, diarrhea, piloerection.
Ask the patient if they are in bad withdrawal, and if they feel ready to start bup. If they feel their withdrawal is mild, it is too soon.
If unsure, use COWS (clinical opioid withdrawal scale). Start if COWS ≥ 8 AND objective signs.
Typical withdrawal onset: >12 hours after last short acting opioid (excluding fentanyl), variable after last use of fentanyl or methadone (may be >72 hours)

Start protocol may vary for complicating factors:

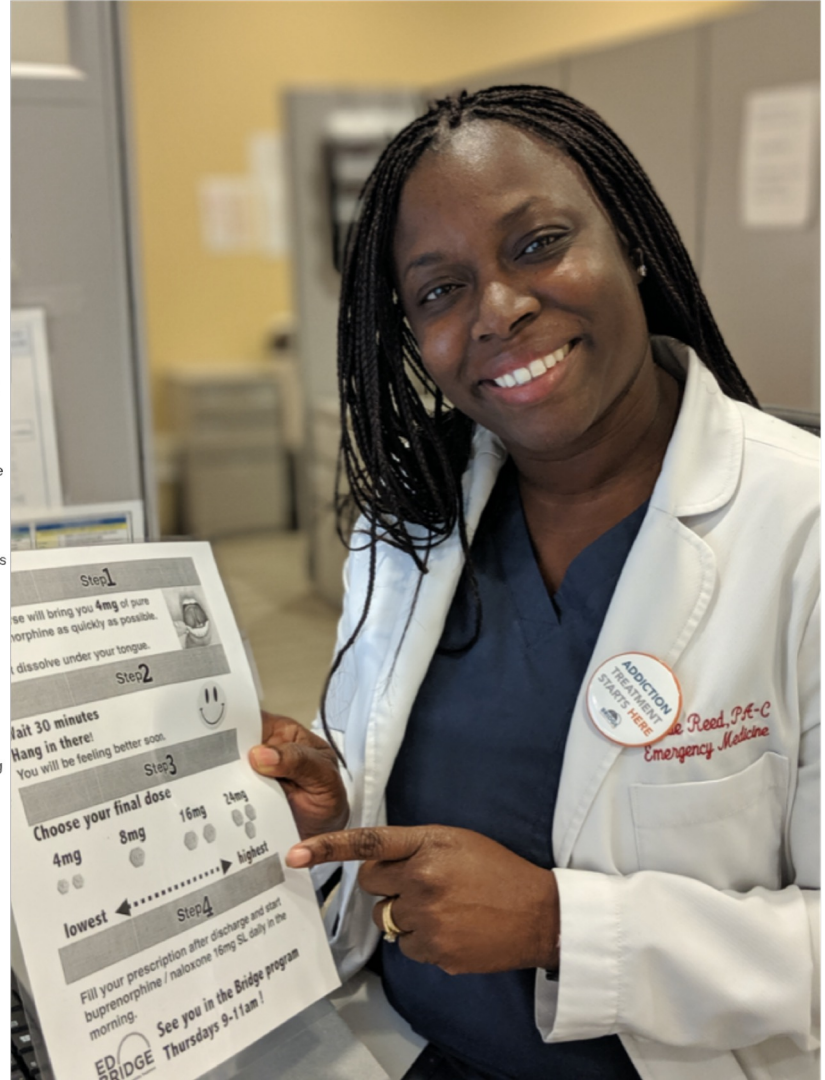
- Altered mental status, delirium, intoxication
- Severe acute pain, trauma or planned large surgeries
- Organ failure or other severe medical illness (decompensated heart failure, respiratory distress, hernodynamically unstable etc.)
- Recent methadone use
- Minimal opioid tolerance (consider lower dosing)

Most people who use fentanyl do well with starts following this guide. For fentanyl specific initiation questions, please see the fentanyl FAQ.

If Patient has has already completed withdrawal/detoxification without opioids (typically >72 hrs from last use) and wants to start bup: give Bup 8mg q6h prn cravings, usual dose 16-32mg/day. After first day, consolidate dosing to daily.

Treatment of precipitated withdrawal
Administer additional 16 mg SL bup immediately
Reassess in 30-60 minutes, if continued distress remains: Repeat 8-16 mg bup SL

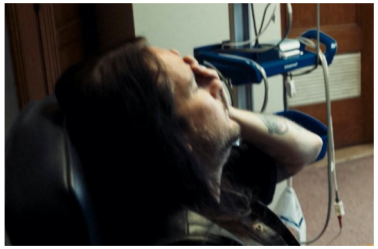
For intractable withdrawal:
May consider alpha-2 agonists (clonidine or dexmedetomidine), antipsychotics (e.g. haloperidol), cautious use of benzodiazepines (ie 1-2 mg PO lorazepam x 1), high potency opioid (e.g. fentanyl 100-200mcg IV q30 or infusion), ketamine (0.3 mg/kg IV slow push q30 minutes or continuous infusion until calm)
Once withdrawal is managed, continue daily bup dose

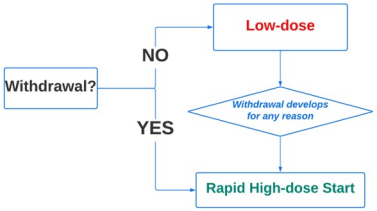



CA
BRIDGE
TREATMENT STARTS HERE
Case
Need help with
pain pills or heroin?
Ask about trying Buprenorphine.
BRIDGE

Case 1: Kicking hard

Tools





Buprenorphine

Full Agonist Opioids

Ketamine

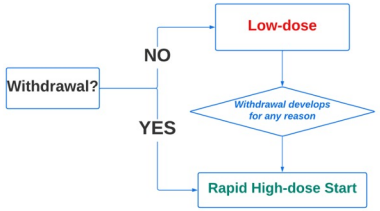
Rarely needed

Clonidine

Lorazepam

Antiemetics/antipsychotics

Case 2:
Not there yet



Tools

Buprenorphine

Full Agonist Opioids

Ketamine

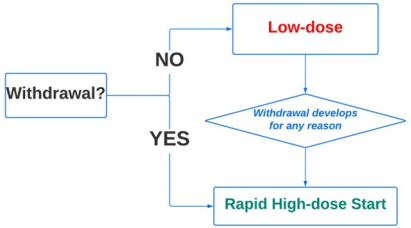
Rarely needed

Clonidine

Lorazepam

Antiemetics/antipsychotics

Case 3: Precipitated Withdrawal



Tools

Buprenorphine

Ketamine

Full Agonist Opioids

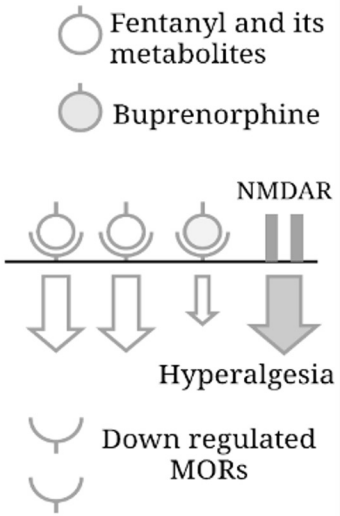
Rarely needed

Clonidine

Lorazepam

Antiemetics/antipsychotics

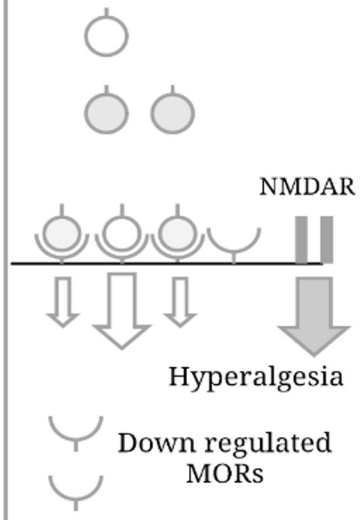
Microinduction



Overall state:
desensitized, underlying hyperalgesia

Opioid balance:
positive due to continued fentanyl use.

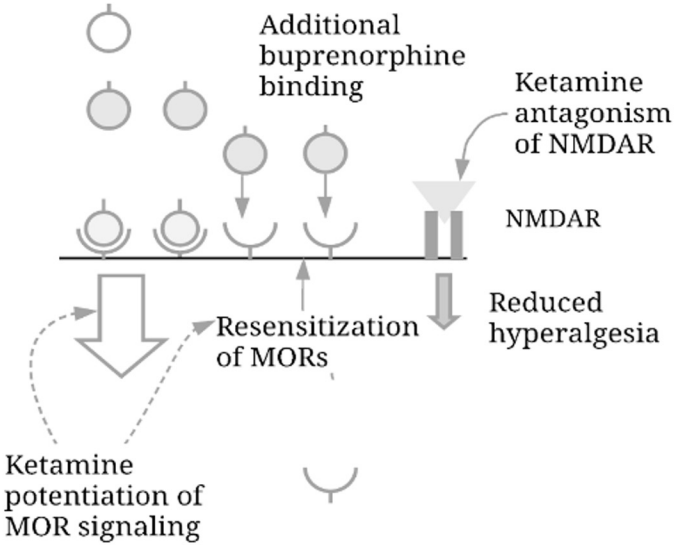
Precipitated Withdrawal



Overall state:
opioid deficit, unopposed hyperalgesia

Opioid balance:
deficit due to:
(1) displaced fentanyl and (2) insufficient buprenorphine MOR receptor activation

Treatment with low-dose ketamine and high-dose buprenorphine

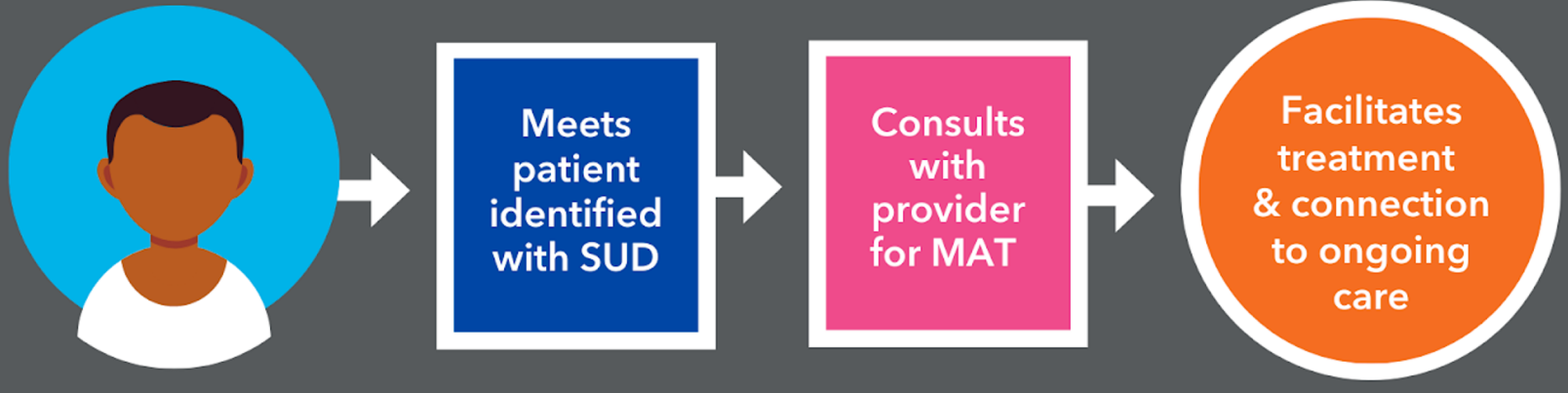


Overall state:
Improved opioid deficit, inhibited hyperalgesia

Opioid balance:
Equilibrium due to: enhanced opioid signaling through MOR resensitization and inhbited NMDAR signaling (reduced hyperalgesia).

The Substance Use Navigator

guides patients with acute substance use disorder (SUD) through the emergency department and beyond.



GOAL: Ensure that all people with substance use disorder receive 24/7 high-quality care in every California health system.

BRIDGE

Opioids | Overdose guide | Alcohol | Meth/Cocaine | Dot Phrases | SUN+Clinic | Resources

Navigators Activate care to fix a broken system

Emergency Room

After hours and weekends
Shelter and safety
Respite-charge phone etc…
Food
Clothing
Social Services
Police services
Legal assistance
Crisis psychiatric care (safety
On-demand medications
On-demand care for wounds
On-demand prescriptions
Portal to other medical resources
Portal to housing

System Accountability gap

Navigators

Overdose and death

Clinic - Pharmacy

Medication Rx available by phone
On-demand doctor by phone
Reliable access (no crowding surges)
Quiet waiting room
Hep C eradication treatment
Psychiatric medications
Long prescriptions (monthly)
Higher dose bup prescriptions
Assistance with pharmacy barriers
Tailored-negotiated individual care
Case management Child care
Specialized medications (Sublocade)
Long-term relationships (Friends)
Psychotherapy
Letters of support/legal

Q&A

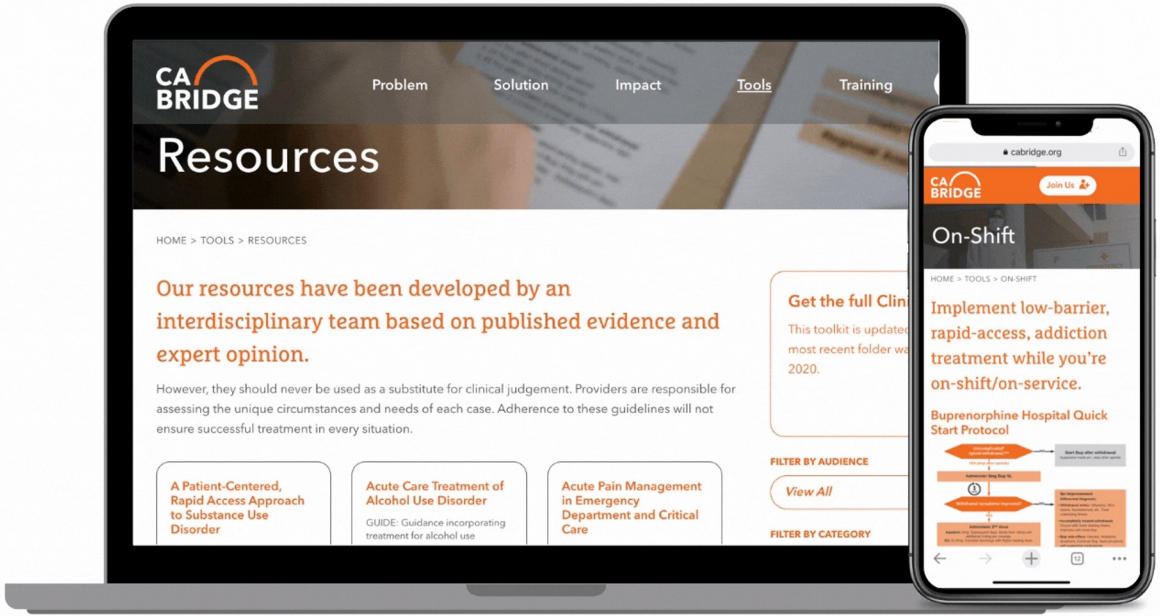
Resources

Join us.

cabridge.org
Visit our website for tools and resources

cabridge.org/join-us
Join our email list for new announcements

@BridgeToTx



Andrew Herring MD
aherring@cabridge.org

www.cabridge.org