A Concept Whose Time is Past Due

Emergency Department Bridge to Medication Assisted Treatment

Brandt Williamson, MD

Because that's where the patients are!

So Why the ED?

Because that's where the patients are!

July 2016 - September 2017

30%

Visits for Opioid Overdose

16/10,000

CDC National Syndromic Surveillance Program NSSP

MMWR March 9, 2018

An Opportunity to Intervene?
The Opioid Epidemic and the Pennsylvania Warm Hand-off Policy

Monica Giacomucci, MPH

Background

The non-medical use of opioid painkillers and heroin is a growing health crisis in the US. Over two million people in the US are estimated to have a substance use disorder tied to opioids. The overdose reversal drug naloxone can save lives. Often survivors are seen in emergency departments although a subsequent connection to clinically appropriate services is lacking. Medication-assisted treatment is effective but there are many overdose survivors who do not seek or receive quality treatment. The Warm Hand-off policy in Pennsylvania mandates assisted referral to treatment for opioid overdose survivors presenting in Emergency Departments (ED). The policy was established in January 2016.

Purpose

The purpose of this research was to assess the knowledge, perception and likelihood of implementation of the Pennsylvania Warm Hand-off policy by hospital ED clinicians.

Research Questions

1. What is the likelihood that opioid and heroin overdose survivors seen in hospital Emergency Departments are referred to clinically appropriate treatment as a result of the Warm Hand-off policy?
2. What is the perceived level of responsibility ED staff have in the implementation of the Warm Hand-off policy?
3. Are there differences between adoption of Warm Hand-off policies across size of hospitals or years of practice?
4. Does education in mental health or substance use disorder influence the ED clinician's likelihood of linkage to treatment and belief that treatment works?

Methods

- ED clinicians from seven hospitals in Pennsylvania were recruited.
- Web-based survey used Likert scale, forced response, and open-ended questions.
- Variables measured were attitudes towards treatment, belief that treatment works, knowledge and self-efficacy.

Results

Selected response from prompt: "Is there anything else you would like to share regarding opioid/heroin overdose survivors in the Emergency Department?"
"Frequently see the same patients before, sometimes during, and after treatment. Treatment sometimes works, but the patient needs to be motivated to seek."

Table 1.
Results of independent samples t-test for size of hospital and ease of warm hand-off procedures

Hospital Size	Medium 35,001-65,000 ED visits/year		Large >65,001 ED visits/year		95% CI for Mean Diff	t	df
	M (SD)	n	M (SD)	n			
Ease of warm hand-off procedures	3.00 (1.26)	38	3.14 (.85)	21	.436, 1.33	3.28 p=.002	30

Table 2.
Results of independent samples t-test for years of practice and likelihood that treatment works

Years of Experience	Up to 15 years		Over 15 years		95% CI for Mean Diff	t	df
	M (SD)	n	M (SD)	n			
Likelihood that treatment works	2.29 (.55)	45	2.00 (.17)	17	-.828, -.150	-2.87 p=.005	60

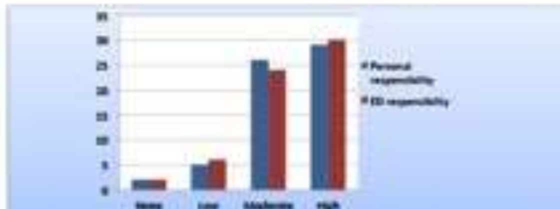

Figure 1. Level of responsibility to refer to treatment. Participants reported their personal level and the Emergency department's level of responsibility to refer opioid overdose survivors to treatment.

Results

- Survey completed by 62 ED clinicians.
- Participants from large sized hospitals perceived warm hand-off procedures to be easier to implement than participants from medium sized hospitals. Results of t-test reported in Table 1.
- Participants with less than 15 years of practice were more likely to believe that treatment works for overdose survivors than those with more than fifteen years practice. Results of t-test reported in Table 2.
- Few participants have had mental health training (18%, n=11). More participants have had training on opioid use disorder (35%, n=22).
- Independent samples t-test found that mental health or opioid training did not influence participants' likelihood to refer to treatment or their belief that treatment works.

Not likely at all
Unlikely
Somewhat likely
Very likely

Figure 2. Participants' belief that opioid overdose survivors can overcome addiction with treatment. No participants believed that recovery is very likely.

Conclusion

- Findings support past research on the rate of compassion fatigue in ED clinicians where clinicians here were not likely to believe that a warm hand-off to treatment could result in recovery.[1,2]
- Coordinated programing by hospitals, public authorities, and mental health organizations might be needed to better support ED clinicians.
- More robust clinician training on addiction that focuses on empathy and patient-provider communication skills is needed.
- Future research should evaluate Warm Hand-off models and share best practices.

References
1. [illegible]
2. [illegible]

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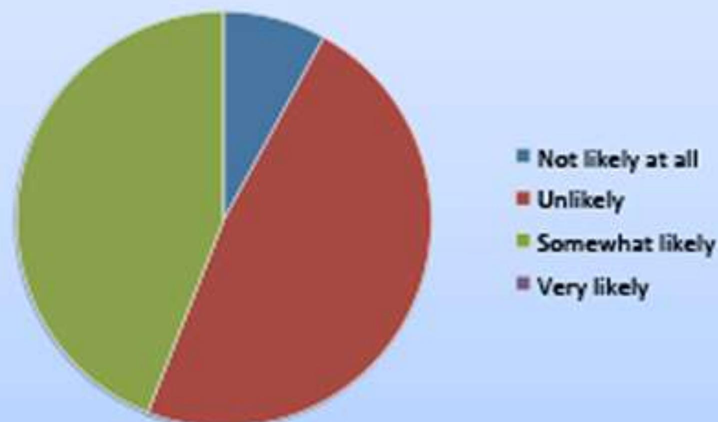

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72-hour rule

Title 21, Code of Federal Regulations, Part 1306.07(b)

Allows to administer (but not prescribe) narcotic drugs for the purpose of relieving acute withdrawal symptoms while arranging for the patient's referral for treatment

- **Not more than 1-day's medication may be administered or given to a patient at one time**
- **Patient must return to ED each day for no more than 72 hours**
- **This 72-hour period cannot be renewed or extended.**

Treatment Gap

SPECIAL REPORT

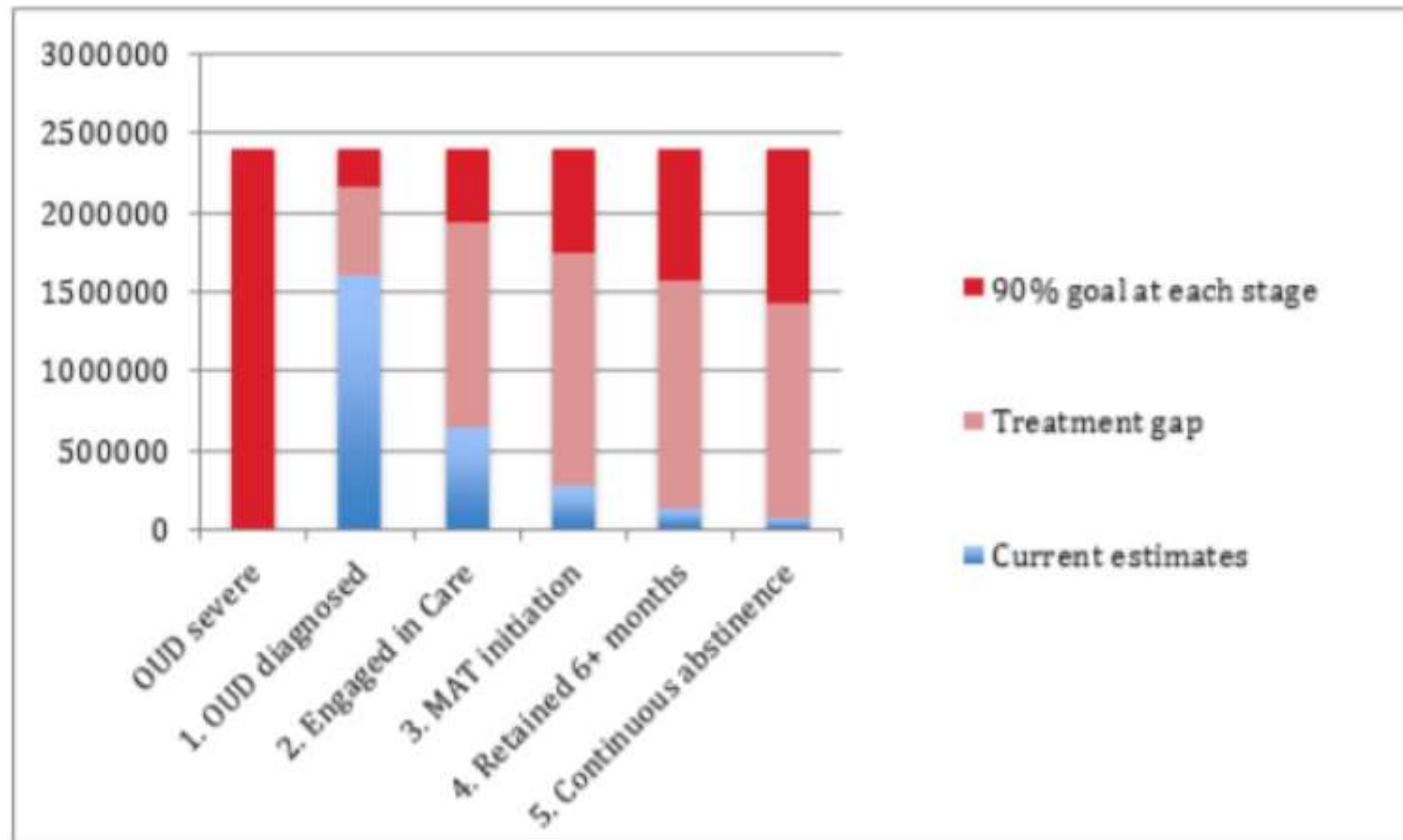
NEJM, June 2017

The Role of Science in Addressing the Opioid Crisis

Nora D. Volkow, M.D., and Francis S. Collins, M.D., Ph.D.

"These medications ... are the current standards of care for reducing illicit opioid use, relapse risk and overdoses... However, limited access... can create barriers to treatment."

Treatment Gap In Substance Abuse Treatment System among OUD Cascade of Care



Williams AR, Nunez E, Olfson M. Health Affairs Blog, 2017

Emergency Department-Initiated Buprenorphine for Opioid Dependence with Continuation in Primary Care: Outcomes During and After Intervention

Gail D'Onofrio, MD, MS[1], Marek C. Chawarski, PhD[1,2], Patrick G. O'Connor, MD, MPH[3], Michael V. Pantalon, PhD[1], Susan H. Busch, PhD[4], Patricia H. Owens, MS[1], Kathryn Hawk, MD, MHS[1], Steven L. Bernstein, MD[1], and David A. Fiellin, MD[3,4]

Emergency Department-Initiated Buprenorphine/Naloxone Treatment for Opioid Dependence
A Randomized Clinical Trial

Gail D'Onofrio, MD, MS; Patrick G. O'Connor, MD, MPH; Michael V. Pantalon, PhD; Marek C. Chawarski, PhD; Susan H. Busch, PhD; Patricia H. Owens, MS; Steven L. Bernstein, MD; David A. Fiellin, MD

COMMENTARY

Emergency Department Treatment of Opioid Addiction: An Opportunity to Lead

A Bridge to Treatment
by janaburson

Objective

To compare the efficacy of 3 interventions for opioid dependent ED patients

Referral to Treatment

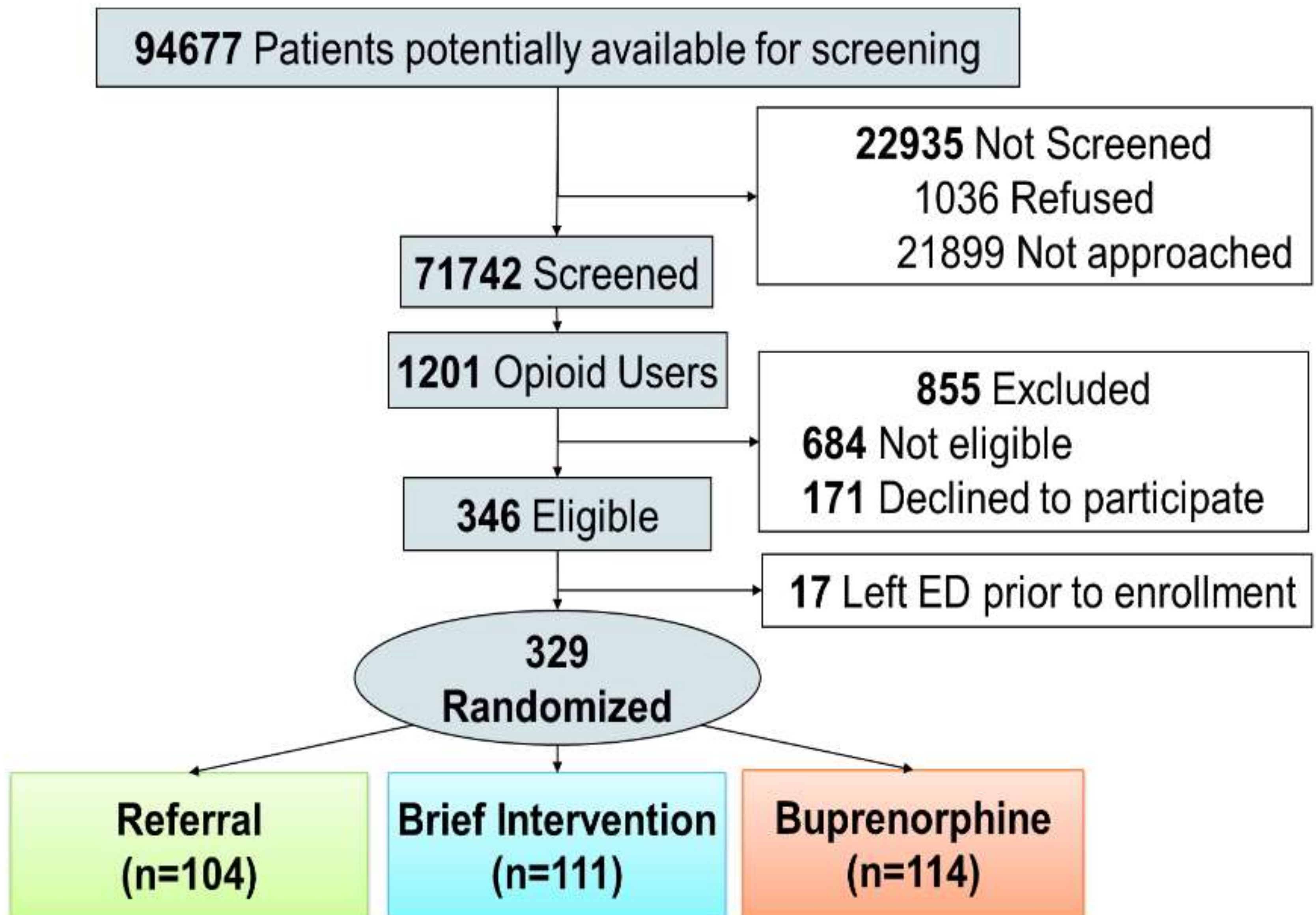
Brief Intervention & Facilitated Referral

Brief Intervention with ED-initiated Buprenorphine
Primary Care follow-up for 10 weeks treatment

Interventions

Referral	Handout of all drug treatment providers/services in the area relevant to insurance status and access to a phone
Brief Intervention	The BNI, discussion of treatment options, and *a facilitated* referral to treatment [BNI, mean time 10.6 (SD) 4.3]
Buprenorphine	The BNI + ED-initiated buprenorphine and referral to Primary Care in 24-72 hours for ongoing buprenorphine medical management (10 weeks), followed by transfer or detoxification

Consort Diagram



Screening: Health Quiz

1. In the PAST 30 days have you used any of the following pain relievers?		
a) Codeine	☐ 0…No	☐ 1…Yes
b) Fentanyl (Duragesic, Actiq, Sublimaze)	☐ 0…No	☐ 1…Yes
c) Hydrocodone (Vicodin, Lorcet, Lortab, Hycodan, Norco, Vicoprofen)	☐ 0…No	☐ 1…Yes
d) Hydromorphone (Dilaudid, Palladone)	☐ 0…No	☐ 1…Yes
e) Meperidine (Demerol)	☐ 0…No	☐ 1…Yes
f) Methadone (Dolophine, Methadose)	☐ 0…No	☐ 1…Yes
g) Buprenorphine (Subutex, Suboxone)	☐ 0…No	☐ 1…Yes
h) Morphine (MS Contin, Kadian, Duramorph)	☐ 0…No	☐ 1…Yes
i) Oxycodone (Percocet, Percodan, Roxicet, Oxycontin, Roxicodone, Endocet, Tylox)	☐ 0…No	☐ 1…Yes
j) Oxymorphone	☐ 0…No	☐ 1…Yes
k) Pentzocine (Talwin)	☐ 0…No	☐ 1…Yes
l) Propoxyphene (Darvocet, Darvon, Wygesic)	☐ 0…No	☐ 1…Yes
m) Other (specify) ____________	☐ 0…No	☐ 1…Yes
2. Were these drugs prescribed for you?	☐ 0…No	☐ 1…Yes
3. Have you ever taken the drug(s) for the experience or feeling it caused?	☐ 0…No	☐ 1…Yes
4. In the PAST 30 days have you used heroin?	☐ 0…No	☐ 1…Yes
5. How often do you use heroin or insert name of drug(s)	___ Days	___ Weeks

For Additional Probing:
Have you requested refills earlier than prescribed? How do you usually take your medication?

Inclusion/Exclusion Criteria

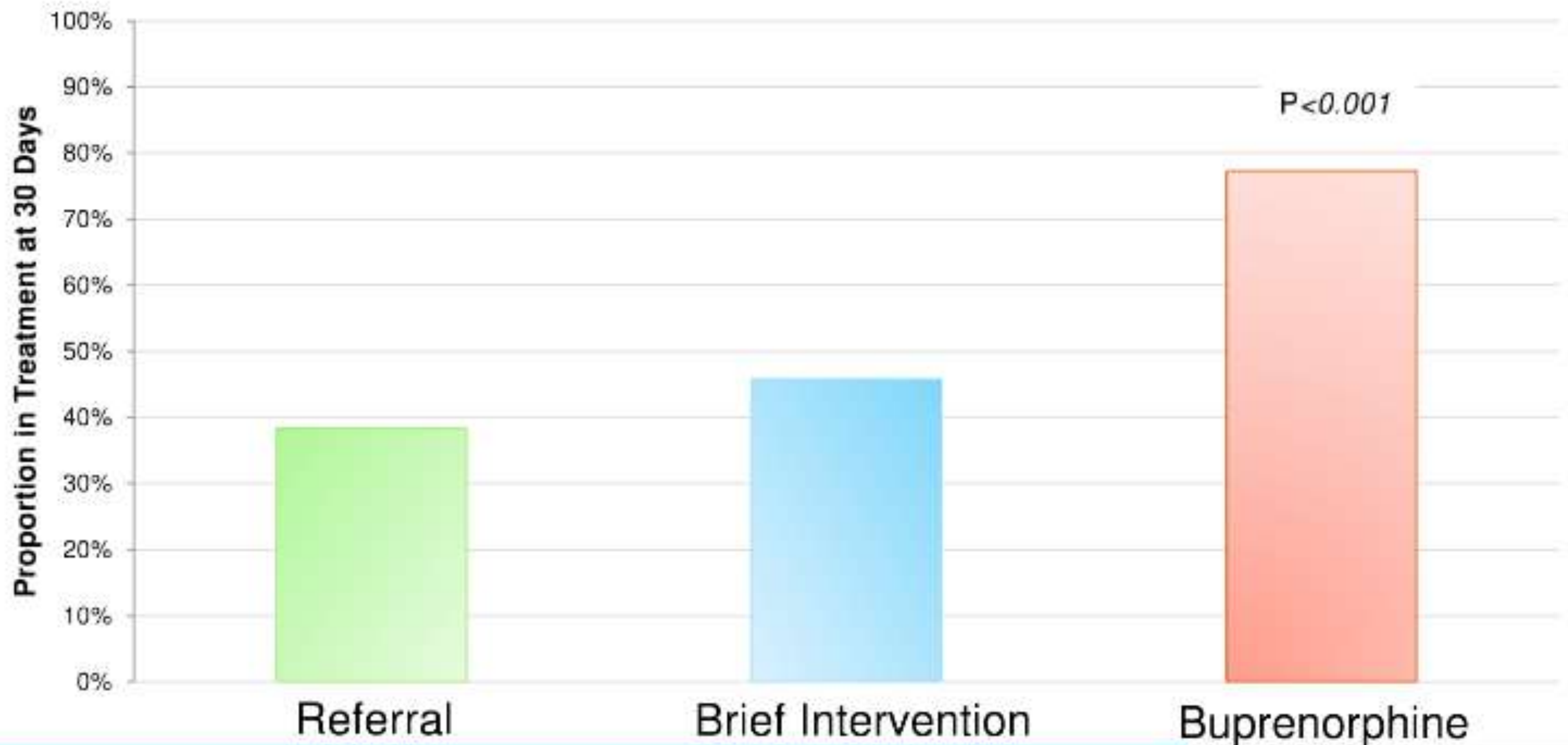
Inclusion: Patients presenting to the Yale-New Haven Hospital ED

- >18 years of age
- Opioid dependent: MINI
- Positive urine toxicology for opioids

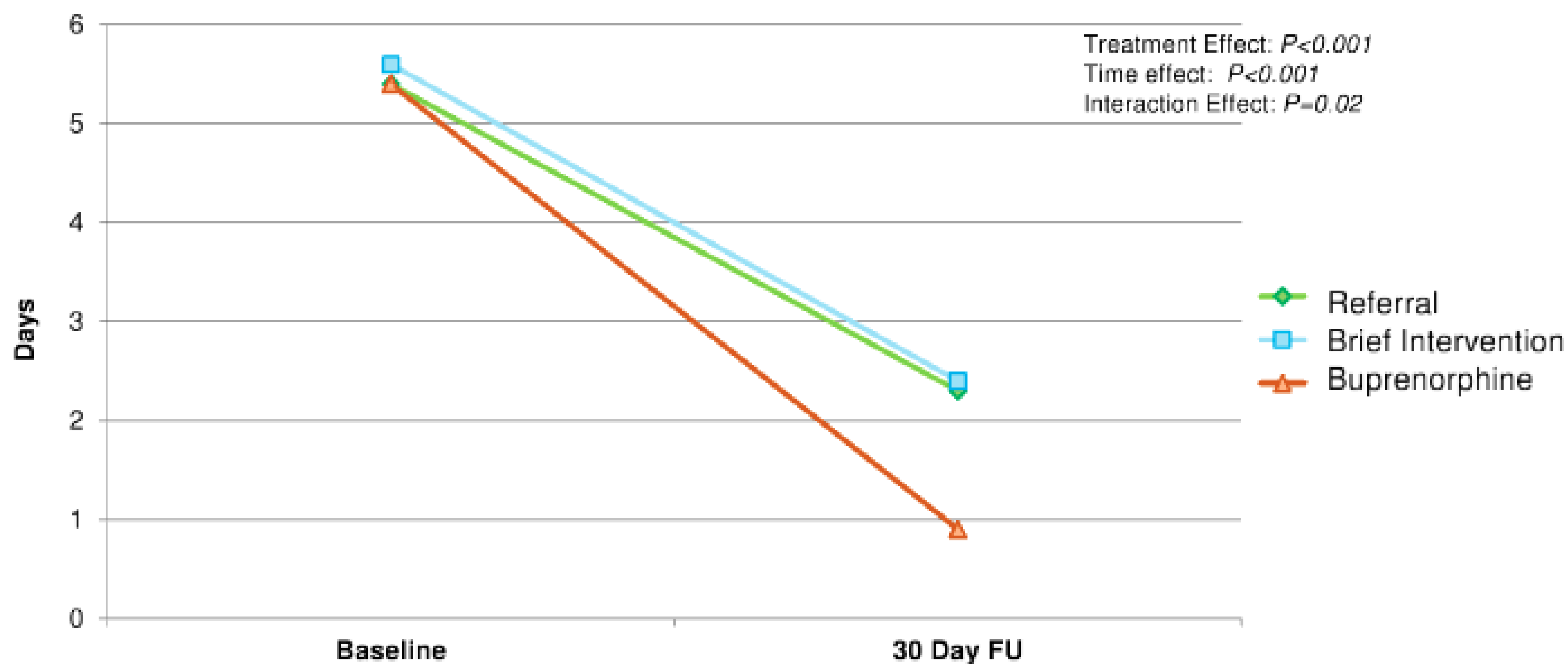
Exclusion:

- Inability to read or understand English
- Currently enrolled in a formal substance abuse program
- Currently suicidal or psychotic
- Presenting with a life-threatening or unstable illness or injury
- Requiring hospital admission
- Requiring opioid agonist medication for a pain-related diagnosis (contraindication to buprenorphine)

Engaged in Treatment 30-Days

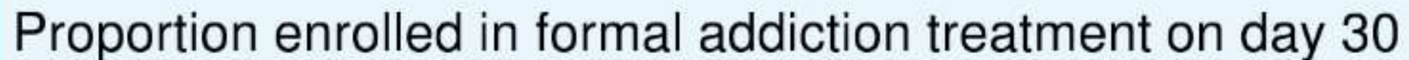


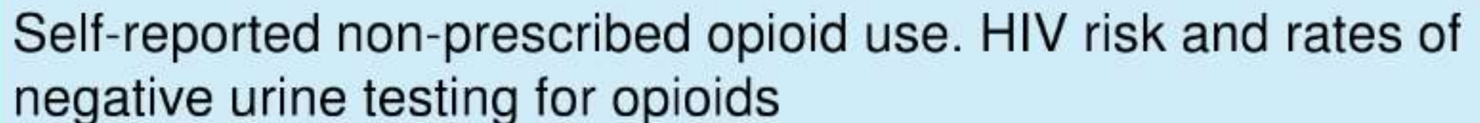
Past 7 Day illicit Opioid Use

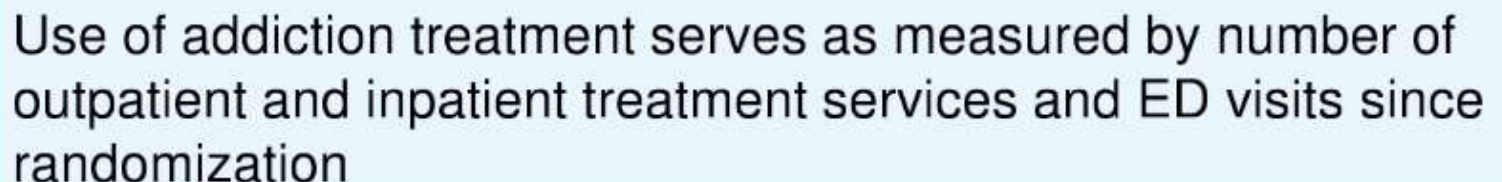


Outcome Measures

30 days







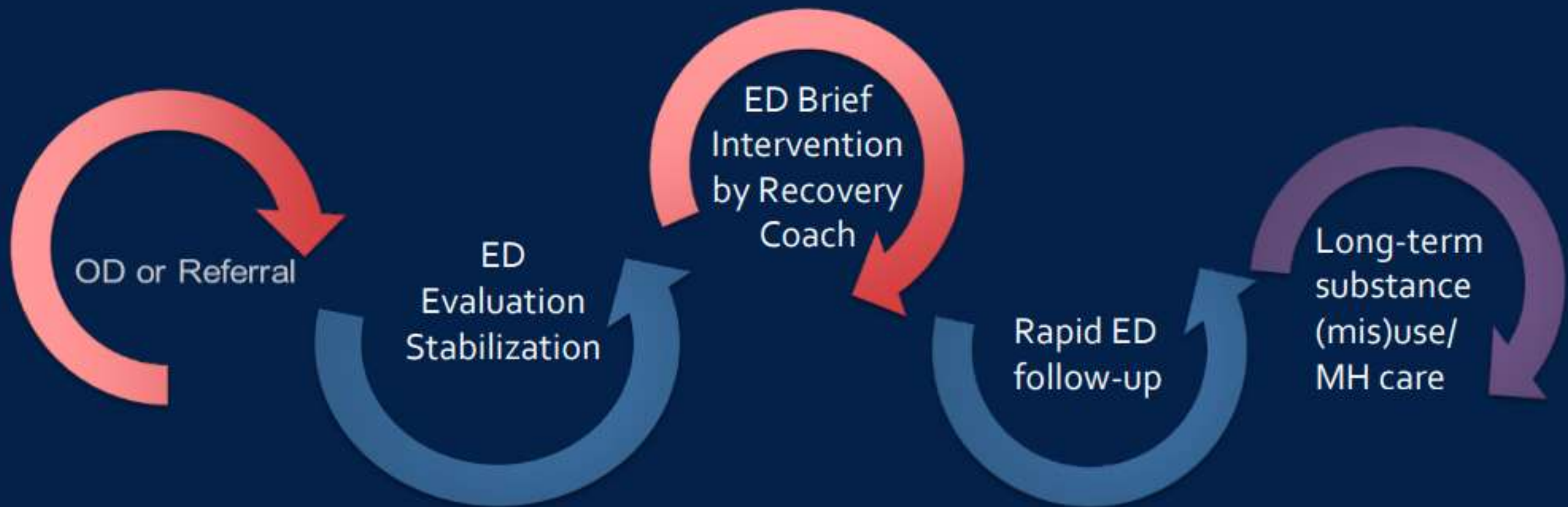
Formal opioid addiction treatment is defined as:

Clinical settings including office-based providers of BUP or inpatient, detoxification, therapeutic community, naltrexone, methadone or buprenorphine maintenance. Participation in a self-help program such as N.A. alone will not be considered as engagement in a formal treatment

Conclusion

ED-initiated buprenorphine treatment with follow-up medical management in primary care is superior compared with Referral and Brief Intervention at 30 days in:

- Engaging patients in treatment
- Reducing days of illicit opioid use
- Reducing inpatient addiction treatment


OD or Referral
ED
Evaluation
Stabilization
ED Brief
Intervention
by Recovery
Coach
Rapid ED
follow-up
Long-term
substance
(mis)use/
MH care

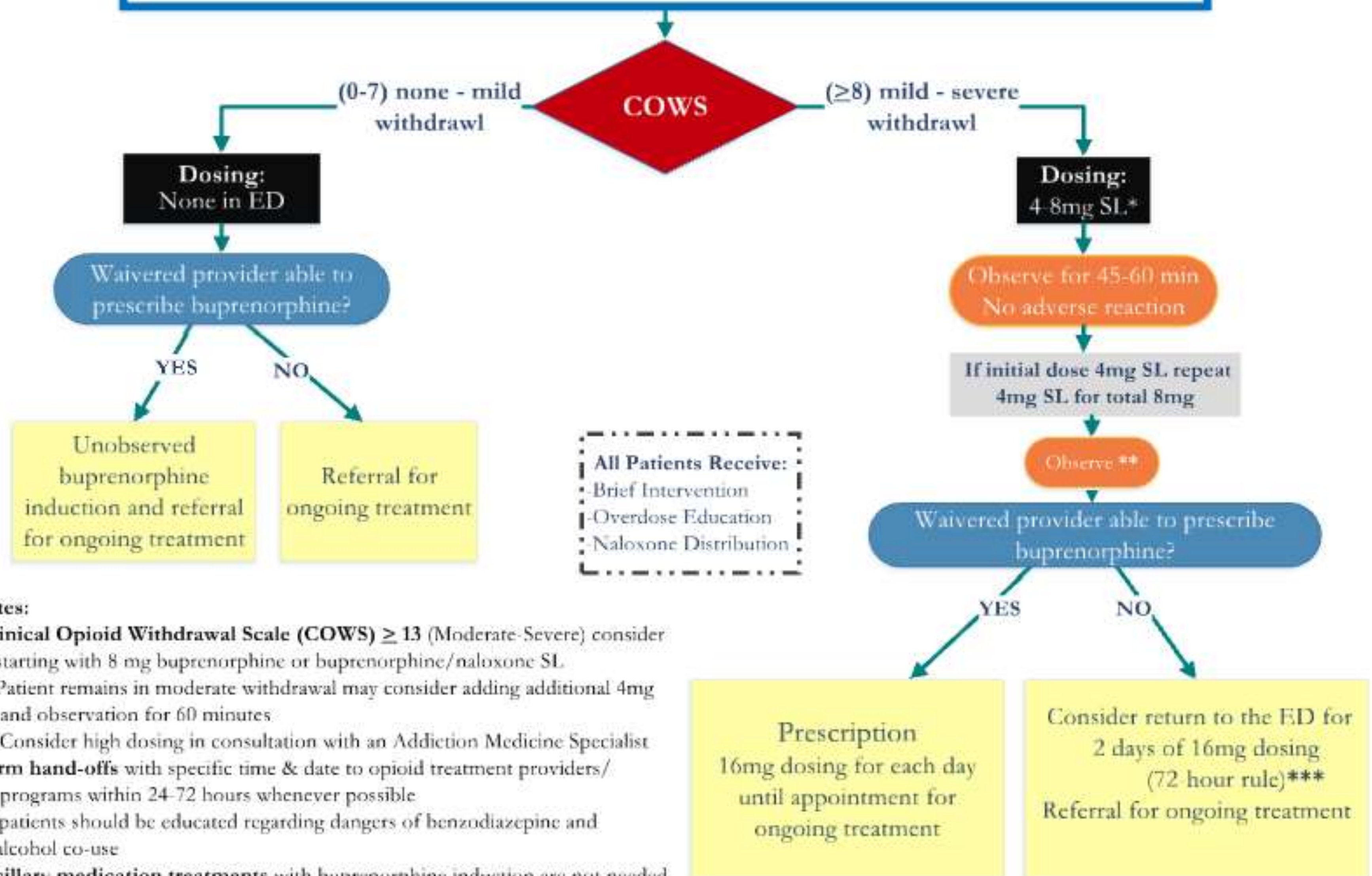
ED-Initiated Buprenorphine

Diagnosis of Moderate to Severe Opioid Use Disorder

Assess for opioid type and last use

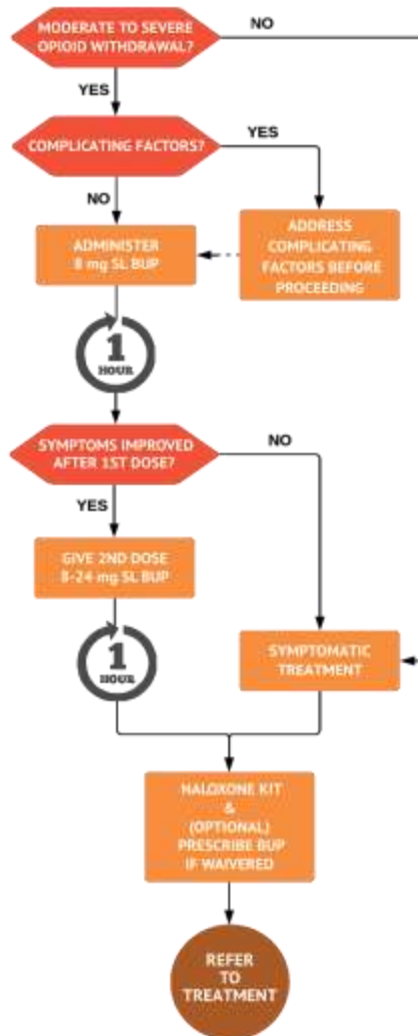
Patients taking methadone may have withdrawal reactions to buprenorphine up to 72 hours after last use

Consider consultation before starting buprenorphine in these patients



BUPRENORPHINE (BUP) ALGORITHM

AUGUST 2018



CALIFORNIA ACEP

ED BRIDGE

MODERATE TO SEVERE OPIOID WITHDRAWAL
- Use clinical judgement to determine moderate to severe withdrawal
- If uncertain, use the Clinical Opioid Withdrawal Scale (COWS)
- If using COWS, the score should be ≥ 8 or ≥ 6 with at least one objective sign of withdrawal
- Document: which opioid used, time of last use

COMPLICATING FACTORS

Identify and manage complicating factors prior to proceeding. The only absolute contraindication is allergy to buprenorphine.

Refer to Buprenorphine Guide before dosing buprenorphine for:
- Clinical suspicion of acute liver failure
- ≥ 20 weeks pregnant
- Intoxicated or altered
- Withdrawal precipitated by naloxone
- Taking methadone or long acting opioid
- Chronic pain patients taking prescribed opioids
- Withdrawal symptoms are inconsistent or borderline (COWS of 6-8), or opioid use within 12 hours; consider beginning with a low dose (2-4 mg SL) and titrating every 1-2 hours

PARENTERAL DOSING
- Use if unable to take sublingual (SL)
- Start with 0.3 mg IV/IM buprenorphine; may repeat as needed; switch to SL when tolerated

PRECIPITATED WITHDRAWAL
- Buprenorphine can cause precipitated withdrawal if too large a dose is given too soon after the last opioid use
- The longer the time since last opioid use (> 24 hours) and the more severe the withdrawal symptoms (COWS ≥ 13) the better the response to initial dosing
- Only patients with objective improvement in withdrawal after the 1st dose should receive subsequent dosing
- Worsening after buprenorphine is likely precipitated withdrawal; no further buprenorphine should be administered in the ED; switch to symptomatic treatment

SYMPTOMATIC TREATMENT
- Supportive medications such as clonidine, gabapentin, metoclopramide, low-dose ketamine, acetaminophen, NSAIDs

LOWER TOTAL DOSE OPTION (16 mg)
- Possible lower risk of sedation or precipitated withdrawal
- Some patients will go back into withdrawal in less than 12 hours increasing risk of early dropout
- Buprenorphine prescription or next day follow-up should be available

HIGHER TOTAL DOSE OPTION (24-32 mg)
- Increased magnitude and duration of opioid blockade
- More complete treatment of withdrawal in heavy users
- May suppress craving and protect against overdose (opioid blockade) for 2 days or more
- Use with caution in medically complex patients, older patients, and patients using other sedatives such as alcohol or benzodiazepines

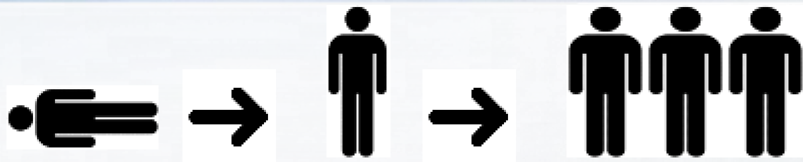
RE-EVALUATION TIME INTERVALS
- The time to SL buprenorphine onset is typically 15 minutes and peak clinical effect is typically within 1 hour
- Re-evaluate patient 1 hour after buprenorphine doses
- Observe for 1 hour after the final dose before discharge

DEA 72 HOUR RULE
- Patients may return to the ED for up to 3 days in a row for repeat doses
- At each visit administer 16 mg SL buprenorphine

FOLLOW-UP
- Goal: follow-up treatment available within 3 days

Opioid
OVERDOSE KIT

ED Bridge to Medication Assisted Tx

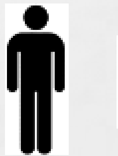


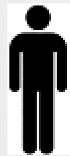
Narcan

Medical Stabilization

Integration:
*Recovery Coach
*Hepatitis A vaccine
*Buprenorphine script
*Common intake Document
*Standard labs
*Narcan packet

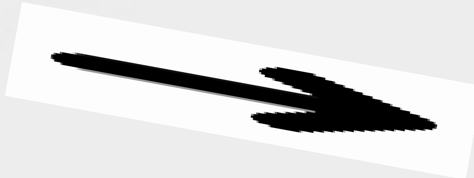
Outpatient MAT





Walk in requesting treatment

Consider ED Buprenorphine Induction and outpatient rx



Inpatient detox and rehab for medically at risk and those who desire inpatient care.

ANDREW HERRING MD - HIGHLAND HOSPITAL

ROSS SULLIVAN MD -UPSTATE UNIVERSITY HOSPITAL

RACHEL HAROZ MD
COOPER UNIVERSITY HEALTH CARE