Treatment of Opioid Use Disorder in the Emergency Department: Should it be a Choice?

Dr. Gail D’Onofrio, M.D.
Professor and Chair, Department of Emergency Medicine, Yale University School of Medicine

Tuesday, April 9, 2021
12:00 - 1:00 PM ET
Disclosures

• I disclose the following ACGME-defined interests:
  ▪ I receive grant funds from the following:

The content of this activity may include discussion of off label or investigative drug uses. The faculty is aware that is their responsibility to disclose this information.
Target Audience

• The overarching goal of PCSS is to train healthcare professionals in evidence-based practices for the prevention and treatment of opioid use disorders, particularly in prescribing medications, as well for the prevention and treatment of substance use disorders.
Educational Objectives

At the conclusion of this activity participants should be able to:

- Cite supporting evidence for ED-initiated buprenorphine
- Identify barriers and solutions to initiating buprenorphine in the Emergency Department
- Define components of the buprenorphine integration pathway
- Describe and apply overall strategies for developing a successful program
We Know...

The Extent of the Problem
20.4 million Americans >12 years of age have a substance use disorder

1.6 million have a opioid use disorder

9.7 million report non medical use of pain relievers in the past year

Results from 2019 NSDUH, Sept 2020
Evolution of Drivers of Overdose Deaths, All Ages

Analgesics  ➔  Heroin  ➔  Fentanyl  ➔  Stimulants

70,630 Deaths in 2019
50,042 from Opioids (Prescription and Illicit)

Predicted number of deaths (12 month ending Aug 2020)
88,295  ➔  26%

Source: The Multiple Cause of Death data are produced by the Division of Vital Statistics, National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC), United States Department of Health and Human Services (US DHHS).
Recent CDC data for the 12-month period ending in May 2020
81,230 people in a single year
223 people lost in a single day

https://www.stop-overdose.org/

223 people die in our country each day from a drug overdose.
Sons, daughters, moms, dads, siblings and friends.
We Know...

Treatment Works
Methadone & Buprenorphine equally effective

31 trials, 5430 participants

Opioid use

Retention in treatment

“Present evidence suggests that adding psychosocial support does not change the effectiveness of retention in treatment and opioid use during treatment.”

Mattick et al., 2014

Amato et al., 2011
Advantages of Opioid Agonist Treatment

- Reduction in illicit substance use
- Less viral hepatitis, HIV, & IV drug use complications
- Reduction in risk of opioid overdose and death
- Reduction in risky behaviors
- Reduced risk of legal consequences
- More time available to
  - Have sustainable relationships
  - Find gainful employment
  - Deal with other medical problems
✓ OUD is a treatable chronic brain disease

✓ FDA-approved medications to treat OUD are effective and save lives

✓ Long-term retention on MOUD is associated with improved outcomes

✓ A lack of availability of behavioral interventions is not justification to withhold MOUD

✓ Most people who could benefit from MOUD do not receive it, and access is inequitable

✓ Withholding or failing to have available all classes of FDA-approved MOUD in any care or justice setting is denying appropriate medical treatment

✓ Confronting the major barriers to use of MOUD is critical to addressing the opioid crisis

Sponsors: National Institute on Drug Abuse (NIDA)
Substance Abuse and Mental Health Services Administration (SAMHSA)
We Know...

The ED Offers the 24/7/365 Option to Combat the Opioid Crisis
Why focus on the ED?

Because that’s where the patients are!

Approximately one of every 80 visits to the ED are opioid-related (costing 5 billion per year)

Langabeer, Drug & Alcohol Dependence, Jan 2021
Overdose

Seeking Treatment

Screening
COVID-19 Collides with the Opioid Epidemic

Count of ED Visits in the US
December 30, 2018, to October 10, 2020

Weekly % Δ in Total ED visits, all drug OD, and opioid OD in 2020 compared to 2019

Holland, JAMA Psych, Feb 2021
We Know...

The Consequences of Inaction
12 months post non-fatal OD
- 30% received MOUD
- 4.7% all-cause mortality
  - 2.2% opioid-related
- BUP and MMT decreased in mortality
Measured 1 year mortality for non-fatal ODs
July 2011-Sept 2015

5% died within one year

29 (.25%) died within 2 days

Conclusion: An ED visit for opioid overdose offers a opportunity for intervention
We Know...

The Evidence
A Randomized Trial of ED-Initiated Interventions for Opioid Dependence

Engaged in Treatment 30-Days

Past 7 Day illicit Opioid Use

NIDA 5R01DA025991

JAMA 2015;313(16):1636-1644
Cost-effective acceptability curve: base case analysis

- Willingness-to-pay for a 1 percentage point increase in the probability a patient is engaged in treatment 30-days post-enrollment.
- Willingness-to-pay for 1 additional opioid-free day in the past 7-days
Cost-effectiveness of ED-initiated Treatment for Opioid Dependence

Cost-effective acceptability curve: base case analysis

- Willingness-to-pay for a 1 percentage point increase in the probability a patient is engaged in treatment 30-days post-enrollment.
- Willingness-to-pay for 1 additional opioid-free day in the past 7-days
Buprenorphine Use increased significantly from 2002-2003 to 2016-2017 (odds ratio for linear trend, 3.31; 95% CI, 1.04-10.50; P = .04).
**Content of the Guide**

This guide contains a foreword and five chapters. The chapters are modular and do not need to be read in order. Each chapter is designed to be brief and accessible to health care providers, health care system administrators, community members, and others working to meet the needs of individuals with OUD.

<table>
<thead>
<tr>
<th>FW</th>
<th>Evidence-Based Resource Guide Series Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Issue Brief</td>
</tr>
<tr>
<td></td>
<td>Overview of how the ED is uniquely positioned to help individuals presenting with opioid use disorder, the pharmacology of Medication-Assisted Treatment with specific attention to buprenorphine and its formulations for use in the ED. In addition, tips are provided to improve adoption and reduce the stigma of opioid use disorder.</td>
</tr>
</tbody>
</table>

| 2  | What Research Tells Us                      |
|    | Current evidence regarding the effectiveness of ED-initiated buprenorphine and implementation strategies. Included are harm reduction strategies such as overdose education and naloxone distribution. |

| 3  | Examples of Emergency Department Programs    |
|    | Highlights four innovative ED programs using evidence-based practices for ED-initiated buprenorphine and referral to continuing care. |

| 4  | Addressing Myths to Implementing Evidence-Based Practices and Programs |
|    | Practical strategies to ensure success in adoption of ED-initiated buprenorphine. |

| 5  | Resources to Support Greater Access to and Effective Use of Medications for Opioid Use Disorder in Emergency Departments |
|    | Guidance and resources for implementing evidence-based programs and practices, monitoring outcomes, and improving quality. |
EDs and Emergency Physicians can...

- Identify patients with OUD
- Provide treatment
  - Initiate buprenorphine
  - Overdose education and naloxone distribution
- Directly link patient to continued opioid agonist therapy & preventive services
The latest research shows that we really should do something with all this research.
We Learned...
CTN-0069 Project ED Health

Opioid Use Disorder in the Emergency Department

Gail D’Onofrio MD, MS
David Fiellin MD

Yale University
School of Medicine
CTN 0069: Opioid Use Disorder in the ED

Design: Hybrid Type 3 Effectiveness-Implementation Study

Using a multisite stepped wedge design allowing for:

- Dual testing of effects & implementation interventions
- Testing of an implementation strategy while observing and gathering information on the intervention’s impact on clinical outcomes
- Emphasizing implementation over effectiveness

4 Sites

Harborview
Mt Sinai
U of Cincinnati
Johns Hopkins
## Components of Implementation Facilitation

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Facilitator</td>
<td>Outside content expert who assists site</td>
</tr>
<tr>
<td>Formative evaluation</td>
<td>Quantitative and qualitative determination of impact</td>
</tr>
<tr>
<td>Local Champion</td>
<td>Local site stakeholder who promotes change</td>
</tr>
<tr>
<td>Stakeholder Engagement</td>
<td>Aligning goals of implementation and those impacted</td>
</tr>
<tr>
<td>Tailor Program to Site</td>
<td>Addressing site-specific needs based on formative assessment</td>
</tr>
<tr>
<td>Provider Education and Academic Detailing</td>
<td>Provision of unbiased peer education</td>
</tr>
<tr>
<td>Performance Monitoring and Feedback</td>
<td>Assess implementation of treatment efforts and inform site of results</td>
</tr>
<tr>
<td>Learning Collaborative</td>
<td>Shared learning opportunities tailored to stakeholders</td>
</tr>
<tr>
<td>Problem-Solving</td>
<td>Discussions on issues regarding ED, organizational, and community barriers with site champions</td>
</tr>
<tr>
<td>Program Marketing</td>
<td>Efforts designed to increase attention to availability of ED-initiated BUP</td>
</tr>
</tbody>
</table>

D'Onofrio, Implementation Science, 2019
NIDA CTN-0079 ED-CONNECT
Implementation of ED-BUP programs in rural and urban settings with high need and limited resources

6-month evaluation
- 112 of 134 (83.6%) unique ED-BUP candidates received BUP
- Approx. 50 unique ED providers

Among the 40 BUP-recipients enrolled:

- Successfully linked to OUD treatment
  50% engaged at 30 days; 70% had ≥ 1 visit

- Decreased Opioid Use
  -2.9 days/week (p<0.001); 51.4% negative toxicology

- Fewer opioid overdoses
  Odds of overdose was 4x higher at baseline (95% CI: 1.3-12.8; p=0.019)
Barriers to implementation:
- Lack of training and experience in treating OUD with buprenorphine
- Ability to link to treatment
- Competing priorities for ED time and resources,
- Misunderstanding and stigma toward patients with OUD

Solutions:
- Training
- Protocols integrated within the EHR
- Targeted feedback to ED staff on patient outcomes
Anyone Can Treat Opioid Withdrawal with Buprenorphine

HHS Expands Access to Treatment for Opioid Use Disorder

Eliminates X-Waiver Requirement for DEA-Registered Physicians

Today, the U.S. Department of Health and Human Services is announcing it will publish Practice Guidelines for the Administration of Buprenorphine for Treating Opioid Use Disorder - PDF, to expand access to medication-assisted treatment (MAT) by exempting physicians from certain certification requirements needed to prescribe buprenorphine for opioid use disorder (OUD) treatment.

"Eliminates the requirement that physicians with a DEA registration number apply for a separate waiver to prescribe buprenorphine."

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.

"Eliminates the requirement that physicians with a DEA registration number apply for a separate waiver to prescribe buprenorphine."

Patient Themes (CTN 0069 & 0079)

- Need for low-barrier access to treatment in the ED, particularly after OD
- Sense that ED staff did not understand addiction or perceive it as a medical disease
- Perception that pain and medical issues were minimized or not taken seriously because of history of addiction
- History of feeling stigmatized while receiving ED care, with recent variability noted across EDs
- Rare positive experiences with clinicians
# Words Matter

Words are powerful... They can contribute to stigma and create barriers to accessing effective treatment

Use person-first language; focus on the person, not the disorder

When Discussing Opioid or Other Substance Use Disorders...

<table>
<thead>
<tr>
<th>Avoid These Terms:</th>
<th>Use These Instead:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addict, user, drug abuser, junkie</td>
<td>Person with opioid use disorder or person with opioid addiction, patient</td>
</tr>
<tr>
<td>Addicted baby</td>
<td>Baby born with neonatal abstinence syndrome</td>
</tr>
<tr>
<td>Opioid abuse or opioid dependence</td>
<td>Opioid use disorder</td>
</tr>
<tr>
<td>Problem</td>
<td>Disease</td>
</tr>
<tr>
<td>Habit</td>
<td>Drug addiction</td>
</tr>
<tr>
<td>Clean or dirty urine test</td>
<td>Negative or positive urine drug test</td>
</tr>
<tr>
<td>Opioid substitution or replacement therapy</td>
<td>Opioid agonist treatment</td>
</tr>
<tr>
<td>Relapse</td>
<td>Return to use</td>
</tr>
<tr>
<td>Treatment failure</td>
<td>Treatment attempt</td>
</tr>
<tr>
<td>Being clean</td>
<td>Being in remission or recovery</td>
</tr>
</tbody>
</table>
Patient Barriers

- **Inability to obtain life-saving medications at the ED touchpoint**
  - Provider does not have an X-waiver to prescribe
  - Patient not in sufficient withdrawal to obtain ED dosing, and unobserved induction not possible without an X-waivered provider

- **Difficulty filling prescription**
  - Lack of proper identification and/or transportation
  - Required insurance preapproval

- **Vulnerable populations with unstable housing and under/non insured**

*Larochelle DAD 2019*
Translating Research into Practice

Initiating Treatment

Direct Linkage
How do I start buprenorphine in the ED?
Buprenorphine Integration Pathway

1. **Identify**
   - ED Presentation
   - Seeking Treatment
   - Screen Positive
   - Complication of Drug Use
     - Withdrawal
     - Overdose
     - Infection
   - Identified during the course of the visit

2. **Assess**
   - OUD
   - Identification of OUD based on DSM-5
   - Clinical Opioid withdrawal Scale (COWS)
   - Urine/blood Testing

3. **Treat**
   - BNI Buprenorphine algorithm

4. **Discharge & Refer to Treatment**
① Formally assess for opioid use disorder

② Formally assess the severity of opioid withdrawal (COWS)

③ Assess patient willingness for BUP

④ Provide ED-initiated buprenorphine (ED or home induction)

⑤ Overdose education and naloxone distribution (OEND)

⑥ Provide formal referral for ongoing opioid agonist treatment
DSM-5 criteria for diagnosis of Opioid Use Disorder

At least 2 criteria must be met within a 12 month period

1. Take more/longer than intended
2. Desire/unsuccessful efforts to quit opioid use
3. A great deal of time taken by activities involved in use
4. Craving, or a strong desire to use opioids
5. Recurrent opioid use resulting in failure to fulfill major role obligations
6. Continued use despite having persistent social problems
7. Important activities are given up because of use.
8. Recurrent opioid use in situations in which it is physically hazardous (e.g. driving)
9. Use despite knowledge of problems
10. Tolerance
11. Withdrawal

Severity

Presence of Symptoms

Mild: 2-3
Moderate: 4-5
Severe: >6
① Formally assess for opioid use disorder

② Formally assess the severity of opioid withdrawal (COWS)

③ Assess patient willingness for buprenorphine

④ Provide ED-initiated buprenorphine (ED or home induction)

⑤ Overdose education and naloxone distribution (OEND)

⑥ Provide formal referral for ongoing opioid agonist treatment
# Clinical Opioid Withdrawal Scale

**Resting Pulse Rate**
- 80 or below: 0
- 81-100: 1
- 101-120: 2
- >120: 4

**Restlessness**
- Sits still: 0
- Difficulty sitting still: 1
- Frequently shifting limbs: 3
- Unable to sit still: 5

**Anxiety or irritability**
- None: 0
- Increasing: 1
- Irritable/anxious: 2
- Cannot participate: 4

**Yawning**
- None: 0
- 1-2 times: 1
- 3 or 4 times: 2
- Several per/min: 4

**Pupil Size**
- Normal: 0
- Possibly larger: 1
- Moderately dilated: 2
- Only rim of iris visible: 5

**Runny Nose or Tearing**
- Not present: 0
- Moist eyes: 1
- Nose running/tearing: 2
- Constant running/tears streaming: 4

**Tremor**
- No tremor observed: 0
- Felt-not observed: 1
- Slight tremor observable: 2
- Gross tremor/Twitching: 4

**Sweating**
- No report of subjective: 0
- Flushed: 1
- Beads of sweat observable: 2
- Streaming down face: 3

**Gooseflesh Skin**
- Skin is smooth: 0
- Piloerection: 3
- Prominent piloerection: 5

**Bone or Joint pain**
- None: 0
- Mild: 1
- Severe: 2
- Unable to sit still due to pain: 4

**GI upset**
- None: 0
- Stomach cramps: 1
- Nausea or loose stool: 2
- Diarrhea: 5
- Multiple episodes: 5

**Score:**
- 5-12 = Mild
- 13-24 = Moderate
- 25-36 = Moderately Severe
① Formally assess for opioid use disorder

② Formally assess the severity of opioid withdrawal (COWS)

③ Assess patient willingness for buprenorphine

④ Provide ED-initiated buprenorphine (ED or home induction)

⑤ Overdose education and naloxone distribution (OEND)

⑥ Provide formal referral for ongoing opioid agonist treatment
How do you motivate patients to accept treatment?
What makes people take action?

- Autonomy (freedom)
- Engaging Talk
- Hearing Themselves
- Making a Plan
People only really listen to 1 person...
Brief Negotiation Interview BNI

Raise The Subject

- Establish rapport
- Raise the subject of drug use
- Assess comfort

Provide Feedback

- Review patient’s alcohol and/or drug use and patterns
- Make connection between AOD use and negative consequences; (e.g. impaired judgment leading to injury/unprotected sex/sharing needles)
- Make a connection between AOD use and ED visit
Enhance Motivation

Assess readiness to change: One a scale 1 to 10 how ready are you to stop using, cut back or enroll in program???
(Why didn’t you pick a lower number?)

Negotiate & Advise

- Negotiate goal
- Give advice
- Summarize and complete referral/prescription form
- Thank patient for their time

① Formally assess for opioid use disorder

② Formally assess the severity of opioid withdrawal (COWS)

③ Assess patient willingness for buprenorphine

④ Provide ED-initiated buprenorphine (ED or home induction)

⑤ Overdose education and naloxone distribution (OEND)

⑥ Provide formal referral for ongoing medication assisted treatment
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

COWS

(0-7) none - mild withdrawal
- Dosing: None in ED
  - Waivered provider able to prescribe buprenorphine?
    - YES: Unobserved buprenorphine induction and referral for ongoing treatment
    - NO: Referral for ongoing treatment

(≥8) mild - severe withdrawal
- Dosing: 4-8mg SL*
  - Observe for 45-60 min
    - No adverse reaction
      - If initial dose 4mg SL, repeat 4mg SL for total 8mg
      - Observe **
  - Waivered provider able to prescribe buprenorphine?
    - YES: Consider return to the ED for 2 days of 16mg dosing (72-hour rule)**
      - Referral for ongoing treatment
    - NO: Prescription 16mg dosing for each day until appointment for ongoing treatment

Notes:
*Clinical Opioid Withdrawal Scale (COWS) ≥ 13 (Moderate-Severe) consider starting with 8 mg buprenorphine or buprenorphine/naloxone SL.
** Patient remains in moderate withdrawal may consider adding additional 4mg and observation for 60 minutes.
***Consider high dosing in consultation with an Addiction Medicine Specialist.
Warm hand-offs with specific time & date to opioid treatment providers/programs within 24-72 hours whenever possible.
All patients should be educated regarding dangers of benzodiazepine and alcohol co-use.
Ancillary medication treatments with buprenorphine induction are not needed.
A Guide for Patients Beginning Buprenorphine Treatment at Home

Before you begin you want to feel very sick from your withdrawal symptoms

It should be at least...

- 12 hours since you used heroin/fentanyl
- 12 hours since snorted pain pills (Oxycontin)
- 16 hours since you swallowed pain pills
- 48-72 hours since you used methadone

You should feel at least three of these symptoms...

- Restlessness
- Heavy yawning
- Enlarged pupils
- Runny nose
- Body aches
- Tremors/twitching
- Chills or sweating
- Anxious or irritable
- Goose pimples
- Stomach cramps, nausea, vomiting or diarrhea

Once you are ready, follow these instructions to start the medication

**DAY 1:**
8-12mg of buprenorphine
Most people feel better the first day after 8-12mg. (Dosing depends on how early on the first day you started)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4mg</td>
<td>4mg</td>
<td>4mg</td>
</tr>
<tr>
<td>45 minutes</td>
<td>6 hours</td>
<td>Stop</td>
</tr>
</tbody>
</table>

- Put the tablet or strip under your tongue
- Keep it there until fully dissolved (about 15 min.)
- Do NOT eat or drink at this time
- Do NOT swallow the medicine

Most people feel better after two doses = 8mg

- Stop after this dose
- Do not exceed 12mg on Day 1

**DAY 2:**
16mg of buprenorphine

<table>
<thead>
<tr>
<th>Take one 16mg dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>16mg</td>
</tr>
</tbody>
</table>

Most people feel better with a 16mg dose

Repeat this dose until your next follow-up appointment

If you develop worsening symptoms while starting buprenorphine before your scheduled outpatient appointment return to the emergency department
① Formally assess for opioid use disorder

② Formally assess the severity of opioid withdrawal (COWS)

③ Assess patient willingness for buprenorphine

④ Provide ED-initiated buprenorphine (ED or home induction)

⑤ Overdose education and naloxone distribution (OEND)

⑥ Provide formal referral for ongoing opioid agonist treatment
Those at Highest Risk for Overdose

- Prior non-fatal opioid overdose
- Opioid use disorder leaving controlled settings (e.g. residential treatments, detoxification, incarceration) who have lowered opioid tolerance
- Prescribed doses of opioid analgesics greater than 90 milligram morphine equivalents (MME) per day
- Taking (co-prescription or co-use) opioids and benzodiazepines
- Alcohol and opioids
- Injecting opioids
- Exposed to high potency opioids (fentanyl, W-18)
- Low levels of physical tolerance (new initiates)
- Sleep disordered breathing (e.g. sleep apnea)
Harm Reduction Strategies

- Carry naloxone
- Never use alone
- Don’t combine opioids with other substances (alcohol, benzodiazepines or other sedatives)
① Formally assess for opioid use disorder

② Formally assess the severity of opioid withdrawal (COWS)

③ Assess patient willingness for buprenorphine

④ Provide ED-initiated buprenorphine (ED or home induction)

⑤ Overdose education and naloxone distribution (OEND)

⑥ Provide formal referral for ongoing opioid agonist treatment
BUPRENORPHINE REFERRAL FORM FOR OPIOID USE DISORDER

Instructions: Buprenorphine/naloxone (brand name: Suboxone) helps treat opioid use disorder by decreasing cravings and suppressing withdrawal symptoms. When appropriate, patients with opioid use disorder should receive a prescription or first dose of buprenorphine in the hospital, along with a direct referral for buprenorphine maintenance. For referrals, please complete and fax this form to local treatment centers listed below.

Patient's Name: __________________________ Date of birth: _____/_____/
Phone number: (______) __________ Date of ED visit: _____/_____/
Insurance: □ Medicaid/Medicare □ Commercial □ Self-pay
Presented to ED with opioid overdose: □ Yes □ No

Opioid Use History:
Age of first use: __________ Primary type of opioid used: __________________________
Pattern of opioid use (average daily amount and frequency): __________________________

Substance Use History (other than opioids): Is the patient CURRENTLY using any of the following?
□ cocaine □ PCP
□ alcohol □ synthetic marijuana
□ benzodiazepines □ other __________________________

Medical/Psychiatric History: ________________________________________________________

Critical actions required by the Emergency Department prior to buprenorphine induction:
DSM 5 Score for opioid dependence (Score must be ≥3): __________________________
COWS Score (Score must be ≥8): __________________________

Buprenorphine started in ED: □ Yes □ No Date first dose given in ED: _____/_____/
Dose given: _____ Rx dose _________ Sig: __________________________
Number of days given (Rx): __________________________

Name of referring ED provider: ___________________________

Contact number: (______) __________

Completed form sent by EHR, faxed etc. to (please check one): [List frequent referrals sites]

Note: For all treatment options include information on what insurance types are accepted and appointment times, availability or contact. Include
**NIDA Website**
https://www.drugabuse.gov/ed-buprenorphine

---

**Initiating Buprenorphine Treatment in the Emergency Department**

**Revised September 2018**

**Introduction**

Emergency department (ED) clinicians are in a unique position to interact with people struggling with opioid addiction. Some ED clinicians will see the same patients in their emergency clinics multiple times, often after administering life-saving naloxone to reverse an overdose. NIDA has funded research into the initiation of medication-assisted treatment for addiction to opioids right there in the emergency setting, coordinated by emergency department specialists at Yale University. The resources reflect best practices identified in that research; and offer tools to assist emergency room clinicians.

---

**Treatment Information**

- Buprenorphine Integration Pathway
- Buprenorphine Treatment Algorithm

**Motivating Patients**

- Case 1 - Opioid Overdose: ED-Initiated Buprenorphine
- Case 2 - Seeking Treatment for Opioid Use Disorder
- Case 3 - Opioid Overdose: Harm Reduction
- Case 4 - Adolescent Presenting with Opioid Overdose: Assessment, Intervention and Referral
- Case 5 - Prescription Opioid Withdrawal Symptoms: Assessment, Treatment and Referral
What more do you need to know?
"I think you should be more explicit here in step two."
Develop Protocols, Tools & Resources

Build IT Infrastructure

Engage Multidisciplinary Teams

Find Local Champions

Obtain Leadership Buy-In

Anticipate Barriers & Find Solutions

Performance Monitoring & Feedback

Develop Community Partnerships Bidirectional Communication

Develop Protocols, Tools & Resources
Clinical Decision Support

MDCalc Connect
Early Adopters Program – INVITE ONLY

The MDCalc you love, now even better!

EMBED App

Melnick, BMJ Open, 2019

NIDA UG3DA047003/UH3DA047003
Testing Innovative Treatments
High-Dose Buprenorphine Induction for Treatment of Opioid Use Disorder

An accelerated induction procedure achieves therapeutic buprenorphine levels in less 3-4 hours versus the typical 2-3 days could potentially increase safety during the crucial gap between ED and follow-up care, particularly in context of COVID limitations.

Retrospective chart review 2018 calendar year at single site

- 391 unique patients (579 encounters)
- No cases of respiratory depression or sedation
- 5 cases of precipitated withdrawal had no relation to dose [(4) 8mg]
- Median length of stay was 2.4 hours
- 54 unique providers

CTN 0069-A1

High-Dose Induction Safe and Effective
Buprenorphine Formulations and Induction Strategies

ED-INitiated BupreNOOrphine VALidaTION Network Trial

Hybrid Type 1 Effectiveness-Implementation Design

Implementation
To use implementation facilitation (IF) and training to achieve competence in ED-initiated XR-BUP and SL-BUP inductions in approximately 30 diverse ED sites

Effectiveness
To compare the effectiveness of XR-BUP and SL-BUP induction in approximately 2000 patients with untreated OUD in the ED on the primary outcome of engagement in formal addiction treatment at 7 days

D'Onofrio, Contemporary Clinical Trials, 2021
Additional Study Components

Ancillary Component

Induction in individuals with minimal to no withdrawal symptoms
(5 sites: UPenn PA, Highland & San Leandro CA, RIH, YNHH CT)
To assess use of XR-BUP in individuals experiencing minimal to no withdrawal (COWS score < 8) in 75 patients

Surveillance techniques – Phenotyping Component
To development and validate EHR opioid-related phenotypes to accurately and automatically characterize opioid-related illnesses
ED INNOVATION

CAM2038 24mg versus 16mg SL-BUP per day

Injection Placement

First injections should use, abdomen, outer gluteal area and thighs

Avoid waistline or within 5 cm of the navel

Pharmacokinetics of XR- & SL- Buprenorphine
ED INNVOVATION Sites

RCT
295 enrolled
27 Sites

Ancillary
75 enrolled

Enrollment Complete
We Know...

The Extent of the Problem

Treatment Works

The ED Offers 24/7/365 Day Option to combat the Opioid Crisis

The Consequences of Inaction

The Evidence

We Learned...

How to Break Down Barriers & Increase the Chances Of Success

We Are Investigating...

Implementation strategies, dosing & formulations, surveillance techniques
Life-threatening disease

Treatment works

Emergent Care

Initiate TX Buprenorphine Harm reduction OEND

Facilitated Referral

GET A LIFE

Save a Life
At the End of the Day......
ED-initiated buprenorphine is NOT Optional!
Need help with pain pills or heroin?

We want to help you get off opioids and started on Suboxone (Buprenorphine).

Ask here for more information.
Thank you!!!

Websites:
https://www.drugabuse.gov/ed-buprenorphine
https://medicine.yale.edu/edbup/
PCSS Mentoring Program

- PCSS Mentor Program is designed to offer general information to clinicians about evidence-based clinical practices in prescribing medications for opioid use disorder.

- PCSS Mentors are a national network of providers with expertise in addictions, pain, evidence-based treatment including medications for addiction treatment.

  - 3-tiered approach allows every mentor/mentee relationship to be unique and catered to the specific needs of the mentee.

  - No cost.

For more information visit: https://pcssNOW.org/mentoring/
PCSS Discussion Forum

Have a clinical question?

Ask a Colleague
A simple and direct way to receive an answer related to medication-assisted treatment. Designed to provide a prompt response to simple practice-related questions.

Ask Now

http://pcss.invisionzone.com/register
**PCSS** is a collaborative effort led by the American Academy of Addiction Psychiatry (AAAP) in partnership with:

<table>
<thead>
<tr>
<th>Addiction Technology Transfer Center</th>
<th>American Society of Addiction Medicine</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Academy of Family Physicians</td>
<td>American Society for Pain Management Nursing</td>
</tr>
<tr>
<td>American Academy of Pain Medicine</td>
<td>Association for Multidisciplinary Education and Research in Substance use and Addiction</td>
</tr>
<tr>
<td>American Academy of Pediatrics</td>
<td>Council on Social Work Education</td>
</tr>
<tr>
<td>American Pharmacists Association</td>
<td>International Nurses Society on Addictions</td>
</tr>
<tr>
<td>American College of Emergency Physicians</td>
<td>National Association for Community Health Centers</td>
</tr>
<tr>
<td>American Dental Association</td>
<td>National Association of Social Workers</td>
</tr>
<tr>
<td>American Medical Association</td>
<td>National Council for Behavioral Health</td>
</tr>
<tr>
<td>American Osteopathic Academy of Addiction Medicine</td>
<td>The National Judicial College</td>
</tr>
<tr>
<td>American Psychiatric Association</td>
<td>Physician Assistant Education Association</td>
</tr>
<tr>
<td>American Psychiatric Nurses Association</td>
<td>Society for Academic Emergency Medicine</td>
</tr>
</tbody>
</table>
Educate. Train. Mentor

@PCSSProjects
www.facebook.com/pcssprojects/

Funding for this initiative was made possible (in part) by grant no. 1H79TI081968 from SAMHSA. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.