Developing an ED-Initiated Buprenorphine Program

Kathryn Hawk, MD, MHS
Gail D’Onofrio, MD
Department of Emergency Medicine
Yale University School of Medicine
Working with communities to address the opioid crisis.

- SAMHSA’s State Targeted Response Technical Assistance (STR-TA) Consortium assists STR grantees and other organizations, by providing the resources and technical assistance needed to address the opioid crisis.

- Technical assistance is available to support the evidence-based prevention, treatment, and recovery of opioid use disorders.

Funding for this initiative was made possible (in part) by grant no. 1H79TI080816-01 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.
Working with communities to address the opioid crisis.

✧ The STR-TA Consortium provides local expertise to communities and organizations to help address the opioid public health crisis.

✧ The STR-TA Consortium accepts requests for education and training resources.

✧ Each state/territory has a designated team, led by a regional Technology Transfer Specialist (TTS) who is an expert in implementing evidence-based practices.

Funding for this initiative was made possible (in part) by grant no. 1H79TI080816-01 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.
Contact the STR-TA Consortium

To ask questions or submit a technical assistance request:

• Visit www.getSTR-TA.org
• Email str-ta@aaap.org
• Call 401-270-5900

Funding for this initiative was made possible (in part) by grant no. 1H79TI080816-01 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.
Disclosure Statement

Current grant funding:

[Logos of National Institutes of Health, NIDA, CDC, and SAMHSA, indicating funding sources for filming and production of videos displayed on the interactive web portal.]
The 24/7/365-day Option To Fight the Opioid Crisis
Why focus on the ED?

Because that’s where the patients are

Overdose

Seeking Treatment

Screening
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
A Randomized Trial of ED-Initiated Interventions for Opioid Dependence

D’Onofrio, G., O’Connor, P.G., Pantalon, M.V., Chawarski, M.C., Busch, S.H., Owens, P.H., Bernstein, S.L. and Fiellin, D.A.

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

IMPORTANCE Opioid-dependent patients often use the emergency department (ED) for medical care.

OBJECTIVE To test the efficacy of 3 interventions for opioid dependence: (1) screening and referral to treatment (referral); (2) screening, brief intervention, and facilitated referral to community-based treatment services (brief intervention); and (3) screening, brief intervention, ED-initiated treatment with buprenorphine/naloxone, and referral to primary care for 10-week follow-up (buprenorphine).

DESIGN, SETTING, AND PARTICIPANTS A randomized clinical trial involving 329 opioid-dependent patients who were treated at an urban teaching hospital ED from April 7, 2009, through June 25, 2013.

INTERVENTIONS After screening, 104 patients were randomized to the referral group, 111 to brief intervention, and 114 to buprenorphine/naloxone.

CONCLUSIONS AND RELEVANCE The study findings support the implementation of ED-based interventions for opioid dependence and highlight the feasibility of ED-initiated buprenorphine/naloxone. Further research is needed to establish the cost-effectiveness of ED-intervention approaches for opioid dependence.

NIDA 5R01DA025991

ED-Bup: 2x More Likely to be Engaged in Addiction Treatment at 30 Days

![Bar chart showing the proportion in treatment at 30 days for Referral, Brief Intervention, and Buprenorphine. The chart indicates that Buprenorphine has a significantly higher proportion (P<0.001) compared to Referral and Brief Intervention.]

Referral: 30%
Brief Intervention: 40%
Buprenorphine: 80%
Initiating Treatment

Direct Linkage
Resources

https://www.drugabuse.gov/ed-buprenorphine

Why the Emergency Department (ED)?

That is Where the Patients Are! The opioid epidemic is strongly impacting EDs, with 2018 data from the CDC indicating that there has been a 30% increase in visits for opioid overdose from July 2016 – September 2017. Addiction is a chronic, relapsing disease, and a strongly stigmatized one. It is NOT a moral failing. People who present to the ED for other chronic disease like diabetes and asthma are stabilized with medications and handed off for outpatient care. Individuals with opioid use disorder (OUD) do best with a similar treatment plan.

What is the Evidence?

A 2015 study (JAMA) found that twice as many patients were in OUD treatment at 30 days (~80%) with ED-initiated buprenorphine & a brief negotiation interview (BNI) compared with referral only or a BNI + facilitated referral and used less illicit opioids in the last 7 days.

What Do I Need to Know About Buprenorphine?

It is NOT simply replacing one drug for another. Buprenorphine treatment decreases withdrawal and craving.

ED-Initiated Buprenorphine

The Yale Department of Emergency Medicine is pleased to provide this website as a comprehensive resource for any provider seeking information on ED-initiated buprenorphine. Please check back often as we will be continuously updating the materials provided here.

Overview

Assessments & Tools

Treatment: Buprenorphine Algorithm & BNI

Discharge and Treatment Referral
How do I start buprenorphine in the ED?
"I think you should be more explicit here in step two."
ED presentation

- Seeking Treatment
- Screen Positive
- Complication of Drug Use
  - Withdrawal
  - Overdose
  - Infection
- Identified during the course of the visit

Assess
For OUD

Identification of OUD based on DSM-5

Treat
Clinical Opioid withdrawal Scale (COWS)

BNI Buprenorphine algorithm

Discharge & Refer to 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

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

Formally assess the severity of opioid withdrawal (COWS)

Assess patient willingness for BUP

Provide ED-initiated buprenorphine (ED or home induction)

Overdose education and naloxone distribution (OEND)

Provide formal referral for ongoing opioid agonist treatment
### COWS

<table>
<thead>
<tr>
<th>Resting Pulse Rate</th>
<th>80 or below</th>
<th>81-100</th>
<th>101-120</th>
<th>&gt;120</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restlessness</th>
<th>Sits still</th>
<th>Difficulty sitting still</th>
<th>Frequently shifting limbs</th>
<th>Unable to sit still</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Anxiety or irritability</th>
<th>None</th>
<th>Increasing</th>
<th>Irritable/Anxious</th>
<th>Cannot participate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yawning</th>
<th>None</th>
<th>1-2 times</th>
<th>3 or 4 times</th>
<th>Several per/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pupil Size</th>
<th>Normal</th>
<th>Possibly larger</th>
<th>Moderately dilated</th>
<th>Only rim of iris visible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Runny Nose or Tearing</th>
<th>Not present</th>
<th>Stiffness/moist eyes</th>
<th>Nose running/tearing</th>
<th>Constant running/tears streaming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tremor</th>
<th>No tremor observed</th>
<th>Felt-not observed</th>
<th>Slight tremor observable</th>
<th>Gross tremor/Twitching</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sweating</th>
<th>No report</th>
<th>Subjective report</th>
<th>Flushed/observable report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gooseflesh Skin</th>
<th>Skin is smooth</th>
<th>Piloerection</th>
<th>Prominent piloerection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bone or Joint pain</th>
<th>None</th>
<th>Mild</th>
<th>Severe</th>
<th>Unable to sit still due to pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GI upset</th>
<th>None</th>
<th>Stomach cramps</th>
<th>Nausea or loose stool</th>
<th>Vomiting or diarrhea</th>
<th>Multiple episodes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

**Score:**
- 5-12 = Mild
- 13-24 = Moderate
- 25-36 = Moderately Severe
Anyone Can Treat Opioid Withdrawal with 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.
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... THEYMSELVES!
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
- Negotiate goal
- Give advice
- Summarize and complete referral/prescription form
- Thank patient for their time

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
Waivered provider able to prescribe buprenorphine?
YES
Observe **
NO

All Patients Receive:
- Brief Intervention
- Overdose Education
- Naloxone Distribution

Prescription
16mg dosing for each day until appointment for ongoing treatment
Consider return to the ED for 2 days of 16mg dosing (72-hour rule)
Referral 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
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)

**Step 1.**
- Take the first dose
- Wait 45 minutes
- Take next dose
- 4mg
- 45 minutes
- 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

**Step 2.**
- Still feel sick? Take next dose
- Wait 6 hours
- 4mg
- Most people feel better after two doses = 8mg

**Step 3.**
- Still uncomfortable? Take last dose
- Stop after this dose
- Do not exceed 12mg on Day 1

**DAY 2:**
16mg of buprenorphine

**Step 1.**
- Take one 16mg dose
- Most people feel better with a 16mg dose
- 16mg
- 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
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)
**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.

<table>
<thead>
<tr>
<th>Patient’s Name:</th>
<th>Date of birth:<em><strong><strong>/</strong></strong></em>/_____</th>
<th>Phone number:<em><strong><strong><strong>-</strong></strong></strong></em></th>
<th>Date of ED visit:<em><strong><strong>/</strong></strong></em>/_____</th>
</tr>
</thead>
</table>

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 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
How do I set up a program?
Local champions
Community Partners
Leadership Buy-In
Anticipate Barriers
Success Stories
Protocols
Know your Resources
Community Partners

✧ Is there an OTP, primary care practice, resident clinic, FQHC that will take a “warm handoff”?  
  – What services do they offer?  
  – Insurance?  
  – Waitlist or mandatory waiting period?

✧ Anyone willing to run a Bridge or Transition Clinic?
Local Champions

✧ Administration, Faculty, Residents, Nursing…
  – How are you going to get providers waived?
  – How are you going to get waived providers to prescribe?
  – Do you need to consider other models?

✧ Know your allies
  – In the hospital and out
  – Social work/navigators/Health Promotions Advocates
  – Pharmacy!
Anticipate Challenges

✧ Buprenorphine
  - Waiver Requirements
  - Formulary/ED Pyxis
  - Insurance Prior Authorization?
  - Local pharmacy

✧ Patient
  - ID
  - Insurance
  - Transportation
Additional Challenges

- Anticipate resistance, particularly around ANY increased workload across all staff
  - How can you offload some of the work?
  - What motivates different key players?
    - Reducing repeat ED visits or psych holds
    - Staff safety
    - LOS
    - Patient satisfaction
Making Progress

✧ Engaging stakeholders helps change culture
✧ It will not happen overnight
✧ Perfect is the enemy of good
  - Don’t wait for a perfect protocol or system!
✧ Make is as easy as possible for providers and patients

“This is about improving patient care”
Reduce OD Deaths

- Access to MAT
- Reduce OD Risk
- Safe prescribing
- Data Sharing
- Increasing Access to Naloxone
- Reducing the stigma
Barriers & Myths

“Drug use is a moral failing”
“You are just substituting one drug for another”
“I’m just going to add more drugs to the community, they have enough”
“Patients are going to flock here if we start offering medications like Bup”

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
# Emergency Departments — A 24/7/365 Option for Combating the Opioid Crisis

Gail D’Onofrio, M.D., Ryan P. McCormack, M.D., and Kathryn Hawk, M.D., M.H.S.

<table>
<thead>
<tr>
<th>Concern</th>
<th>Reality</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addiction is a moral failing; patients keep coming back to the ED time and time again.</td>
<td>Addiction is a chronic and relapsing disease that can be effectively treated with opioid-agonist therapies. Emergency physicians often see a skewed sample of patients not in treatment.</td>
<td>Provide patient-specific feedback to ED providers on success stories regarding engagement in treatment.</td>
</tr>
<tr>
<td>Providing buprenorphine to patients will lead to diversion.</td>
<td>There is less diversion of buprenorphine than of other opioids. Buprenorphine bought off the street is often used to reduce withdrawal symptoms. Every buprenorphine pill taken is one less opportunity for overdose, complication of injection drug use, or death.</td>
<td>Offer limited supplies, preferably 2–7 days’ worth of treatment, until an appointment with a community provider or program can be arranged.</td>
</tr>
<tr>
<td>Initiating buprenorphine treatment is complicated, and the ED is already crowded and chaotic.</td>
<td>Buprenorphine is safer and more predictable than many medications used in routine ED practice. Treatment can be accomplished in less time than an urgent care visit.</td>
<td>Integrate protocols electronically into the ED workflow from triage to discharge that engage all providers in order to facilitate a simplified and streamlined process. Identify a cadre of champions available to support new prescribers.</td>
</tr>
<tr>
<td>Initiating buprenorphine will increase length of stay.</td>
<td>Initiating buprenorphine will reduce length of stay and reduce the potential for violent behaviors and injury to staff. Buprenorphine markedly reduces withdrawal symptoms in 20–30 minutes.</td>
<td>Streamline protocols and educate staff to achieve times of 60–90 minutes from presentation to discharge, in keeping with urgent care criteria.</td>
</tr>
<tr>
<td>There is a lack of referral sites for patients who have initiated buprenorphine treatment.</td>
<td>Most communities have treatment resources of which the ED staff are unaware.</td>
<td>Partner and develop relationships with community resources and local health departments to permit efficient referral and feedback. Hire an ED staff member such as a health promotion advocate, which is helpful and cost-effective.</td>
</tr>
</tbody>
</table>

# Emergency Departments — A 24/7/365 Option for Combating the Opioid Crisis

Gail D’Onofrio, M.D., Ryan P. McCormack, M.D., and Kathryn Hawk, M.D., M.H.S.

<table>
<thead>
<tr>
<th>Patients will return repeatedly for redosing.</th>
<th>Repeated visits for redosing have not been demonstrated at sites that consistently offer buprenorphine.</th>
<th>Develop treatment plans that are similar to those for other chronic diseases, such as sickle cell disease. Treat withdrawal with buprenorphine and referral.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients will flock to the ED for treatment.</td>
<td>Patients with OUD are already in the ED. Sites with ED-initiated buprenorphine do not report an uptake of patients seeking treatment.</td>
<td>Initiate treatment protocols at triage to promote rapid assessment, treatment, and referral.</td>
</tr>
<tr>
<td>Many patients don't want treatment anyway.</td>
<td>Some patients, often after an overdose, are not ready for treatment after a brief psychosocial intervention, but discussion may lead to a change in motivation in the future. The ED visit is often a missed opportunity to engage patients who may be contemplating a positive change but need guidance and support.</td>
<td>Introduce harm-reduction strategies such as overdose prevention and naloxone distribution. Establish rapport to facilitate improved outcomes.</td>
</tr>
<tr>
<td>Obtaining a waiver to prescribe buprenorphine is too burdensome.</td>
<td>The training required to obtain a waiver can be done all online or as half-day courses coupled with half-day online services. Most training is free and similar to other required learning and counts toward CME requirements for specialty certification, recertification, and licensing in many states.</td>
<td>Identify resources online and at institutions using the SAMHSA and ASAM websites. Offer faculty development days or group learning events.</td>
</tr>
</tbody>
</table>
Opportunity

Embrace science-based treatments

Engage emergency practitioners

Change the trajectory of the opioid epidemic
Questions?

kathryn.hawk@yale.edu

gail.donofrio@yale.edu