Utilizing Incentives to Advance ED Buprenorphine Implementation and X Waiver Training

March 5, 2020

Jeanmarie Perrone, MD, FACMT
Professor of Emergency Medicine
Director, Medical Toxicology and Addiction Medicine
Center for Addiction Medicine and Policy
University of Pennsylvania

Matthew Winslow, The RASE Project
Please share your tools and resources!

Email Kaynaat.Syed@haponline.org
Matthew’s Story

Vivitrol Coordinator
The RASE Project
Leading health system change

Utilizing incentives to advance ED buprenorphine Implementation and X waiver training

Jeanmarie Perrone, MD, FACMT
Professor of Emergency Medicine
Director, Medical Toxicology and Addiction Medicine
Center for Addiction Medicine and Policy
University of Pennsylvania
@JMPerroneMD
Objectives

1) Describe a strategy utilizing financial incentives to expand the number of X waived clinicians

2) Debunk myths to enhance readiness to administer buprenorphine in the ED and hospital by APPs, residents and faculty to treat opioid withdrawal

3) Characterize the shifting ED culture towards recovery advocacy through peers, positive narratives and follow up to enhance buprenorphine administration
Emergency Departments Saving Lives

As of May 2019, 98 percent of emergency rooms report overdose visits to the Department of Health through syndromic surveillance. The data helps monitor localized overdose trends and identify where additional resources are needed throughout the state.

Emergency Department Visits by County by Quarter

This chart shows the quarterly rate of ED visits per 1,000 population by County. Filters are available for greater discovery. Select your County Name (or type in your...
10 percent revived by Narcan in Mass. died within year, study says
One-Year Mortality of Patients After Emergency Department Treatment for Nonfatal Opioid Overdose

Scott G. Weiner, MD, MPH*; Olesya Baker, PhD; Dana Bernson, MPH; Jeremiah D. Schuur, MD, MHS
*Corresponding Author. E-mail: sweiner@bwh.harvard.edu, Twitter: @scottweinermd.

**Study objective:** Despite the increased availability of naloxone, death rates from opioid overdose continue to increase. The goal of this study is to determine the 1-year mortality of patients who were treated for a nonfatal opioid overdose in Massachusetts emergency departments (EDs).

**Methods:** This was a retrospective observational study of patients from 3 linked statewide Massachusetts data sets: a master demographics list, an acute care hospital case-mix database, and death records. Patients discharged from the ED with a final diagnosis of opioid overdose were included. The primary outcome measure was death from any cause within 1 year of overdose treatment.

**Results:** During the study period, 17,241 patients were treated for opioid overdose. Of the 11,557 patients who met study criteria, 635 (5.5%) died within 1 year, 130 (1.1%) died within 1 month, and 29 (0.25%) died within 2 days. Of the 635 deaths at 1 year, 130 (20.5%) occurred within 1 month and 29 (4.6%) occurred within 2 days.

**Conclusion:** The short-term and 1-year mortality of patients treated in the ED for nonfatal opioid overdose is high. The first month, and particularly the first 2 days after overdose, is the highest-risk period. Patients who survive opioid overdose should be considered high risk and receive interventions such as being offered buprenorphine, counseling, and referral to treatment before ED discharge. [Ann Emerg Med. 2019; 1-5.]
130 deaths first month

Natural History of Opioid Use Disorder

- **Euphoria**
- **Withdrawal**
- **Tolerance & Physical Dependence**

<table>
<thead>
<tr>
<th>Acute use</th>
<th>Chronic use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td></td>
</tr>
</tbody>
</table>

THE TREATMENT GAP

This E.R. Treats Opioid Addiction on Demand. 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.
D’Onofrio: Emergency Department-Initiated Buprenorphine/Naloxone Treatment for Opioid Dependence: A Randomized Clinical Trial. JAMA 2015
MAT: 2x More Likely to be Engaged in Addiction Treatment at 30 Days

D’Onofrio: Emergency Department-Initiated Buprenorphine/Naloxone Treatment for Opioid Dependence: A Randomized Clinical Trial. JAMA 2015
Barriers to Buprenorphine Rx

- I don’t feel comfortable
- I don’t think I am allowed
- It’s just one addiction for another
- I don’t have my X waiver
- It’s complicated

Implementation

- Two strategies for ED buprenorphine readiness
  - “Bup 101” Treating opioid withdrawal in the ED w Buprenorphine
  - X Waiver: Treating and writing prescriptions for Buprenorphine in the ED
Treatment Education for Attending Physicians & Residents

Jeanmarie Perrone, MD, FACMT
Managing Opioid Withdrawal in the Emergency Department With Buprenorphine

Andrew A. Herring, MD; Jeanmarie Perrone, MD; Lewis S. Nelson, MD*

*Corresponding Author. E-mail: lewis.nelson@rutgers.edu, Twitter: @LNelsonMD.

**Complicating factors include viable pregnancy, chronic opioid therapy for pain, anticipated surgery, methadone use, intoxication with alcohol, benzodiazepines, or other sedative, post-exercise withdrawal with naloxone, serious acute medical illness such as heart failure, liver failure, kidney failure, or respiratory failure.

---

Clinical Diagnosis of Uncomplicated Opioid Withdrawal
Based on history and physical exam*

Confirm time since last opioid use (typical)
Short-acting (e.g., heroin, morphine IR): >12 hours
Extended release formulations like OxyContin*: >24 hours
On methadone maintenance: >72 hours (consider methadone in these patients)

Assess Withdrawal Severity
Objective signs and Clinical Opiate Withdrawal Scale (COWS)

Mild or less (COWS < 8)
No buprenorphine indicated
Re-assess patient and COWS in 1-2 hours

Moderate to severe (COWS ≥ 8)
Give buprenorphine 4-8 mg SL based on severity of withdrawal

Re-assess after 30-60 min
Is clinical withdrawal present?

No

Yes

Discharge planning
Providers should maximize the total dose administered.**

X-waivered. Prescribe 16mg SL buprenorphine/naloxone daily for 3-7 days, or until follow-up appointment if known.

Non-X-waivered. Patients may return for up to 3 days in a row for interim treatment.*

Follow-up All patients should be provided the highest level of available care, navigation assistance and the shortest possible wait time to a follow-up appointment with a treatment/recovery provider. Warm handoff preferred if available.

Preventative Health: Strongly consider offering overdose prevention education, a take-home naloxone kit, hepatitis C and HIV screening, and reproductive health counseling.

Administer Additional Buprenorphine
8-24 mg SL (Target 16 mg SL total for most patients)

Sample discharge prescription for a 3-day supply
Buprenorphine/naloxone 8 mg/2 mg SL, tablet or film
Take 2 tablets/film once daily in AM
Dispense W6
No Refills
(can be used BID, with appropriate dose adjustment)

*www.samhsa.gov/programs-campaigns/medication-assisted-treatment/legislation-regulations-guidelines/opiapal

**High Dose Option
Higher initial total doses of 24-32 mg may increase the magnitude and duration of withdrawal relief. Good option for patients with barriers to follow-up care, such as lack of insurance or housing. Discharge prescription can be written as above. The risk of over-sedation and respiratory depression is increased, especially if combined with alcohol, benzodiazepines or other sedatives.

Precipitated Opioid Withdrawal
If after buprenorphine: administer additional buprenorphine, up to 16 mg.
If after naloxone: Expert opinion varies, buprenorphine may be tried but withdrawal short lived.
If after naltrexone: buprenorphine should be considered.
Knowledge Retention at 90 days
Incentive program for X Waiver

- All faculty at 3 urban hospitals (69)
- $750.00 + course payment (ASAM $199.00)
- 5 week window between Nov-Dec 2018
- Social norming emails, boosting enrollment
- Cap of $50,000
Buprenorphine Rx

Rx Rates by Month

- Site A
- Site B
- Site C
- All Sites

Financial Incentive Period

Rx's per OUD Encounters (%)

Apr 2018 - Apr 2019
Patient Instructions for Beginning Buprenorphine Treatment

Day One: Before taking a buprenorphine tablet you want to feel lousy from your withdrawal symptoms. Very lousy. It should be at least 12 hours since you used heroin or pain pills [oxycontin (snorted), vicodin, etc...], 16 hours since oxycontin (swallowed) and at least 48 hours since you used methadone.

Wait it out as long as you can. The worse you feel when you begin the medication the more satisfied you will be with the whole experience. If you take the buprenorphine too soon, it can make you feel worse rather than better.

You should have at least 3 of the following feelings: • Twitching, tremors or shaking • Joint and bone aches • Bad chills or sweating • Anxious or irritable • Goose pimples

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very restless, can’t sit still</td>
<td>Heavy yawning</td>
<td>Enlarged pupils</td>
<td>Runny nose, tears in eyes</td>
<td>Cramps, nausea, vomiting, or diarrhea</td>
</tr>
</tbody>
</table>
Emergency rooms open new paths for opioid overdose survivors
Identification: automation

Penn Medicine Innovation Center Grant
Great job! Last week, you used your instincts and let recovery specialists know about a patient who needed support. That patient is still in contact and considering treatment options!
Physician self-reported minimum thresholds for completing X-waiver training. Proportion of survey respondents who indicated that they would complete training at or below each given value.

Annals Emergency Medicine 2020: in press
# Buprenorphine Progress

<table>
<thead>
<tr>
<th></th>
<th>Nov. '17 – Nov. '18</th>
<th>Dec. '18 – Aug. '19</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRS consults</td>
<td>27</td>
<td>450</td>
</tr>
<tr>
<td>ED bupe admin</td>
<td>84</td>
<td>217</td>
</tr>
<tr>
<td>Bupe bridge scripts</td>
<td>12</td>
<td>118</td>
</tr>
<tr>
<td>Overdoses prevented</td>
<td>≈38</td>
<td>≈224</td>
</tr>
</tbody>
</table>
Two initiatives: Growing your program

Outpatient expansion of MAT
    Health commissioner asked Penn to have every PCP X waived

Optimize hospitalization for initiation
    GME and UME readiness
AMA 2009-2018

% patients leaving AMA among all hospitalizations with OUD, UPHS, 2009-2018
PHC4 data

UPHS Philadelphia: PAH, PPMC, HUP
Expanding Treatment Opportunities for Hospitalized Patients with Opioid Use Disorders

Daniel Winetsky, MD, MS1*, Robert M. Weinrieb, MD, FAPM2, Jeanmarie Perrone, MD3

1Division of Infectious Diseases, Department of Medicine, Columbia University Medical Center, New York, New York; 2Department of Psychiatry, Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania; 3Department of Emergency Medicine, Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania.

The prevalence of opioid use disorders (OUDs) is rising across the United States. Patients with OUDs are often hospitalized for medical conditions other than addiction, such as infection, injury, or pregnancy. These hospital admissions provide an opportunity for healthcare providers to initiate opioid agonist therapy with methadone or buprenorphine. Randomized trials have demonstrated the superior effectiveness of this treatment strategy, but its adoption by hospital providers has been slow. A number of barriers have impeded its implementation, including misperceptions about the regulation of opioid prescribing, limited resources for the transition to community-based treatment, and a lack of familiarity among clinicians about the appropriate initiation and dose adjustment of these opioid agonists for maintenance therapy. We discuss changes in policy and practice to expand opportunities to engage patients with OUDs in opioid agonist treatment during their inpatient hospitalizations. Journal of Hospital Medicine 2017;12: XXX-XXX. © 2017 Society of Hospital Medicine.
In March 2019, the National Academies of Sciences, Engineering, and Medicine released a consensus committee report entitled Medications for Opioid Use Disorder Save Lives. The report found that "To stem the opioid crisis, it is critical for all FDA-approved options to be available for all people with opioid use disorder." The 3 current approved medications (methadone, buprenorphine and naltrexone) are available in multiple formulations, including long-acting implants and injectables, and all except methadone are usually prescribed in a physician’s office. The report found that a major barrier to medication use is "the lack of appropriate education and training among health care providers."

The Accreditation Council for Graduate Medical Education (ACGME) plays an
Penn’s (NEW) Center for Addiction Medicine and Policy

- Clinical Trials Network
- Informatics
- Clinical Trials
- New Therapies

- Research
  - Medical School
  - GME
  - CME
  - SW
  - Nursing School
  - Public Health
  - Goal: Addiction Medicine Fellowship

- Education

- Philanthropy

- City and State Collaboration
  - MAT Education
  - CRS Program
  - Warm Hand-off Mentorship

- CORE
  - ED buprenorphine
  - Expand Primary Care Medicine
  - Family Med.
  - CRC
  - Hospitalists
  - OB
  - ID
  - Surgery-Ortho Trauma

- CHOP
  - Adolescent Medicine
  - SUD Program

- Opioid Task Force
  - State/Federal policies limit access
  - Narcan Laws
  - MAT Access Policies
  - Expand Education Mandates
Buprenorphine success

Tom G.
#Get Waivered!!

Free training: PCCS

- [https://pcssnow.org/medication-assisted-treatment/waiver-training-for-physicians](https://pcssnow.org/medication-assisted-treatment/waiver-training-for-physicians)

- Get Residents trained---sign the petition
- Medical students in PA are getting X waived
- Teach Up!!
Goals

Build a community of multidisciplinary advocates.

Develop strategies to enhance diagnosis (expand screening in ED triage or hospital admission).

Initiate treatment for patients in the ED and Crisis areas and during inpatient hospitalizations.
Thank you

@JMPerroneMD
Questions?
Future Opioid LAN Events

• Webinars
  • March 26, 2020—11:00 AM
  • April 16, 2020—11:00 AM

• Office Hours
  • March 19, 2020—11:00 AM
  • April 2, 2020—11:00 AM

• Regional Meetings
  • March 31, 2020 (Northwest Regional Hospitals/Orgs)