

Impact of an Education Module on the Knowledge and Attitudes of EM Physicians Towards Prescribing Buprenorphine/ Naloxone for Opioid Use Disorder



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DISCLOSURE



- The authors have no conflicts of interest to disclose.
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OBJECTIVES

- Provide a model for a multidisciplinary Emergency Department (ED) buprenorphine induction program.
- Share the approach we used to build, initiate, and SOCIALIZE the program.
- Briefly demonstrate the 3-pronged education module we used to introduce the program.
- Reveal the impact on knowledge and attitudes of Emergency Medicine (EM) physicians that attended the education module.



MULTIDISCIPLINARY ED BUP TEAM

- Research Scientist with background in social work and substance use treatment
- Emergency Psychiatrist
- Emergency Medicine/Medical Toxicology Physician Champion
- Physician Specializing in Primary Care Psychiatry Integration
- Emergency Department Medical Director
- Emergency Pharmacist
- Hospital Administrator Pharmacist
- ED Social Workers
- ED Nurse Champion
- ED Informatics Director
- External Stakeholders



BUP INDUCTION PATHWAY AND TOOLS

- Evidence – based
- Easy to follow (one page)
- Incorporated tools in EMR:
 - Facilitate COWS scoring documentation
 - Induction order sets
 - Charting templates
 - Pre-populated Discharge Instructions including
 - Follow up options
 - Prescriptions
 - Information about the medications prescribed
 - Directions on when to return to the ED



SOCIALIZATION of BUP INDUCTION PATHWAY

- Presentations at various staff and faculty meetings
 - COWS nursing education at nursing meetings
 - Medication instruction at ED pharmacy meetings
 - Social worker meetings for awareness and follow up options
 - Three-pronged education offered at monthly meetings for
 - Faculty
 - APP
 - Resident
- Laminated Bup Induction Pathways posted in provider/nursing stations
- Information provided in ED newsletters
- Mention at ED morning huddles
- Champions in the ED around and available to help and answer questions



EXAMPLE OF 3-PRONGED EDUCATION MODULE PRESENTATION

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THREE ELEMENTS IN EDUCATION MODULE

- 1) Evidence for ED buprenorphine induction:
 - WHY? and WHY IN THE ED?
 - Rational for OUD treatment with buprenorphine.
- 2) Explanation of the ED Bup Induction Pathway and how to use it.
- 3) Introduction of EMR tools to make bup induction seamless in the ED.



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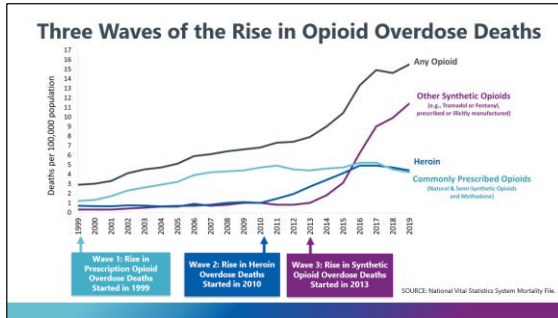
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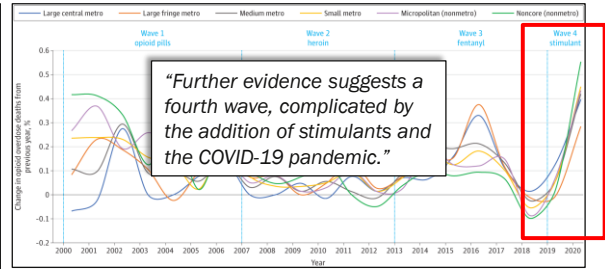
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BACKGROUND

- The Opioid Epidemic: A Tale of ~~Three~~ ^{FOUR} Waves



<https://www.cdc.gov/drugoverdose/epidemic/index.html>



Post LA, Lundberg A, Moss CB, et al. Geographic Trends in Opioid Overdoses in the US From 1999 to 2020. JAMA Netw Open. 2022;5(7):e2223631. doi:10.1001/jamanetworkopen.2022.23631

TREATMENT FOR OPIOID USE DISORDER (OUD)

	Methadone	Buprenorphine	Naltrexone
MOA at μ-Opioid Receptor	Agonist	Partial agonist	Antagonist
Phase of Treatment	Medically supervised withdrawal, maintenance	Medically supervised withdrawal, maintenance	Prevention of relapse
Route of Administration	Oral	SL, buccal, subdermal implant (REMS), SubQ ER (REMS)	Oral, IM (extended-release)
Regulations/Availability	Schedule II- only available at OTPs and the acute inpatient hospital setting	Schedule III- requires waiver to prescribe outside OTP	Not scheduled, anyone can prescribe
Possible adverse effects	Constipation, respiratory depression, sedation, QT prolongation, severe hypotension, misuse potential, neonatal abstinence syndrome	Constipation, nausea, precipitated w/d, respiratory depression (in combo w/CNS depressants), misuse potential, neonatal abstinence syndrome	Nausea, anxiety, insomnia, precipitated w/d, vulnerability to OD

TREATMENT OUTCOMES

- Reduction of withdrawal symptoms (*bup, methadone*)
- Blunting/blocking effects of illicit opioids (*bup, methadone, naltrexone*)
- Reducing/eliminating cravings to use opioids (*bup, methadone, naltrexone*)
- Effectiveness:
 - RCTs demonstrate **reduction of illicit opioid use** (methadone, bup, XR-NTX)
 - Associated with **reduced risk of lethal overdose**



ED-BASED INDUCTION

- ED buprenorphine patients are **twice as likely to be in OUD treatment at 30 and 60 days** compared to discharge with a referral alone
- **Reduces illicit opioid use in first 2 months** compared to referral
- *Patients who remain on buprenorphine are less likely to:* overdose, die, use illicit opioids, spread HCV or HIV, have fewer contacts with the criminal justice system and injection drug use complications

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Original Investigation FREE

April 28, 2015

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

Gail D'Onofrio, MD, MS¹; Patrick G. O'Connor, MD, MPH²; Michael V. Pantalon, PhD¹; et al

> Author Affiliations | Article Information

JAMA. 2015;313(16):1636-1644. doi:10.1001/jama.2015.3474



BUPRENORPHINE PRESCRIBING

- The Drug Addiction Treatment Act (DATA) of 2000
 - "X-waiver" needed to write an outpatient prescription for buprenorphine
 - 8-hour training
 - NOT required to administer buprenorphine in the ED (or on inpatient units)
- "3 day rule"
 - Patients may return to the ED daily to receive buprenorphine for a total of 72 hours
- [Practice Guidelines for the Administration of Buprenorphine for Treating Opioid Use Disorder](#)
 - "exempt eligible physicians, physician assistants, nurse practitioners, clinical nurse specialists, certified registered nurse anesthetists and certified nurse midwives from federal certification requirements related to training, counseling and other ancillary services that are part of the process for obtaining a waiver to treat up to 30 patients with buprenorphine." April 2021



WHY OPIOID AGONIST THERAPY?

- Treats the underlying etiology of the OWS
- Manages the symptoms of OWS much more quickly and effectively
- Can be continued long term
- Allows the immediate transition from withdrawal to sustainable OUD treatment
- Behavioral therapy alone without an agonist (i.e., detoxification) is not generally effective in maintaining abstinence



BUPRENORPHINE RISKS

- Buprenorphine-precipitated withdrawal
 - Insufficiently severe opioid withdrawal
 - Misuse of long-acting opioids, especially methadone
- Buprenorphine toxicity
 - Similar to toxicity associated with full agonist opioids
 - Respiratory depression is much less likely than with full agonists
 - Other CNS depressants
 - Advanced cardiorespiratory disease or sleep apnea
 - Very old or young
- **Likelihood of harm from buprenorphine must be weighed against the likelihood of harm from withholding buprenorphine**



INDUCTION PROTOCOL



STEPS FOR ED INDUCTION PROTOCOL

- 1) Identify patient
- 2) Assess willingness
- 3) Determine if high risk patient
- 4) COWS
- 5) Dosing and reassessment
- 6) Appropriate discharge

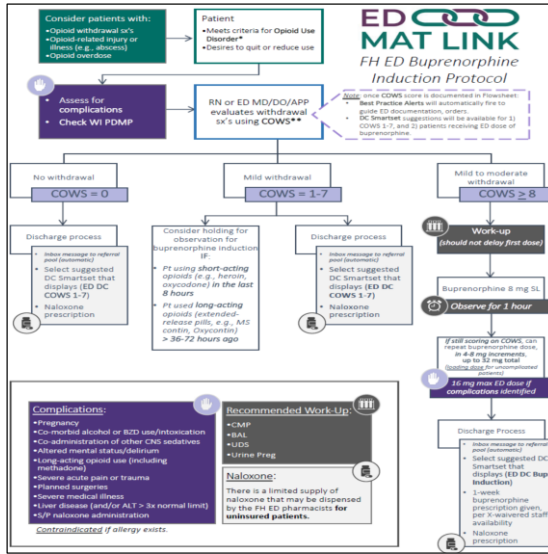


ED BUP INDUCTION– 1) Identify Patient

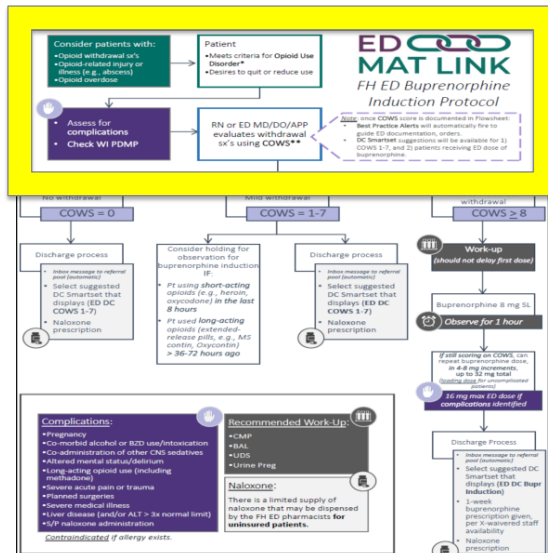
- Any patient with Opioid Use Disorder (OUD) NOT already in MAT program
- May present to the ED as:
 - Opioid overdose
 - Opioid withdrawal
 - Injury or infection related to OUD
 - Any complaint with history of street opioid use
- Can consider a single-question “screen”*: ***How many times in the past year have you used an illegal drug or a prescription medication for nonmedical reasons?***



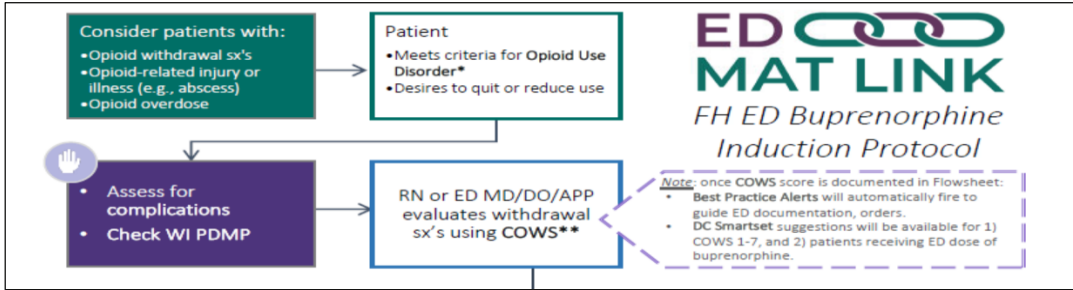
EVIDENCE-BASED ED BUP INDUCTION PATHWAY



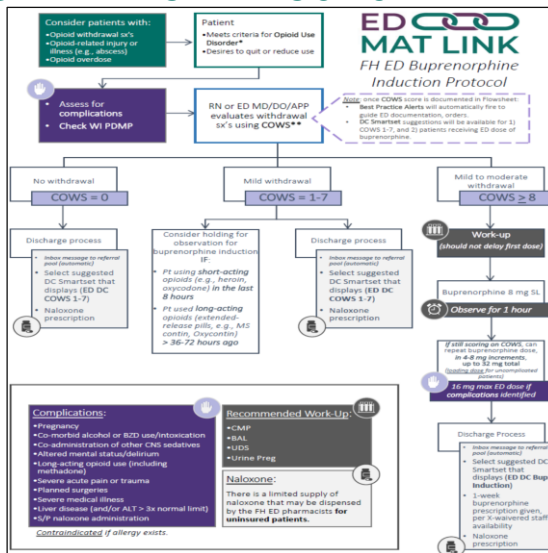
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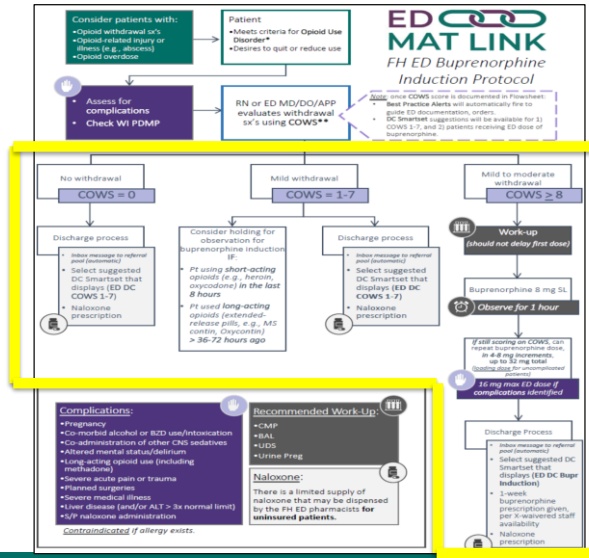
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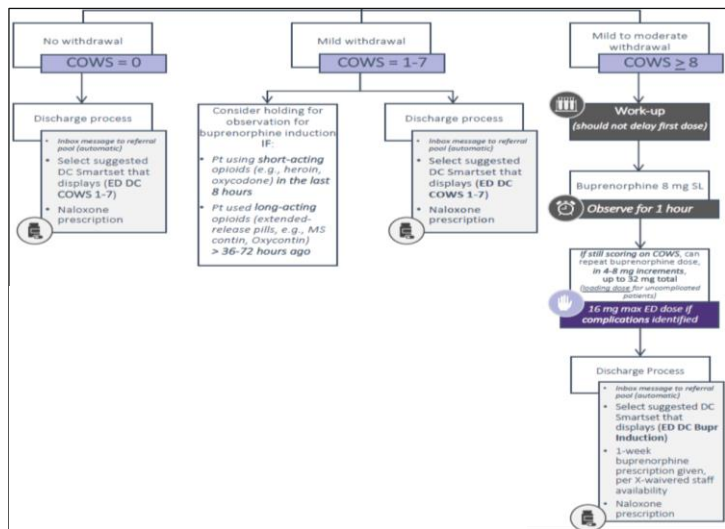
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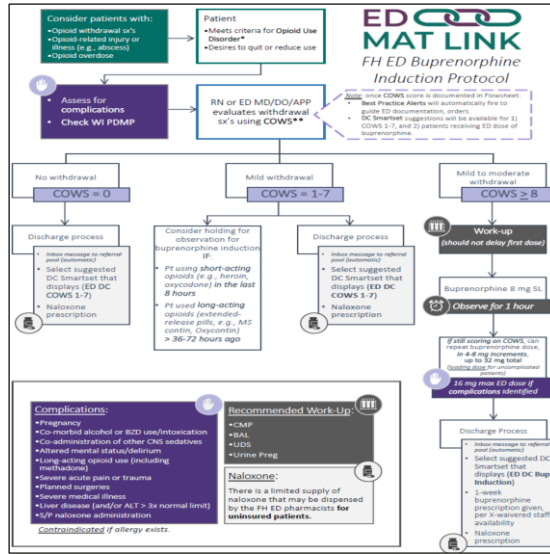
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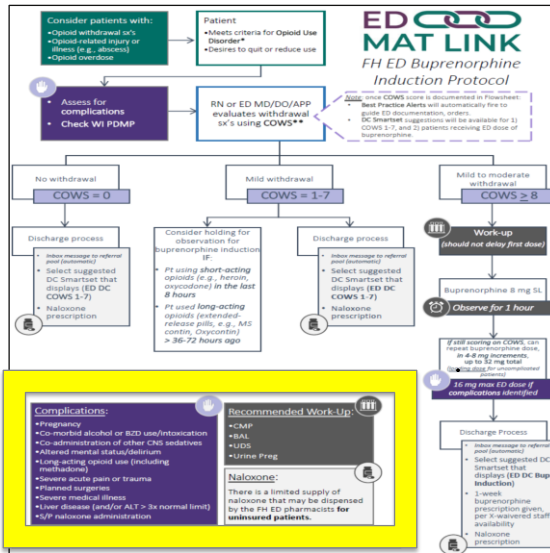
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EVIDENCE-BASED ED BUP INDUCTION PATHWAY



<p>Complications:</p> <ul style="list-style-type: none"> •Pregnancy •Co-morbid alcohol or BZD use/intoxication •Co-administration of other CNS sedatives •Altered mental status/delirium •Long-acting opioid use (including methadone) •Severe acute pain or trauma •Planned surgeries •Severe medical illness •Liver disease (and/or ALT > 3x normal limit) •S/P naloxone administration <p><i><u>Contraindicated</u> if allergy exists.</i></p>	<p>Recommended Work-Up:</p> <ul style="list-style-type: none"> •CMP •BAL •UDS •Urine Preg
	<p>Naloxone:</p> <p>There is a limited supply of naloxone that may be dispensed by the FH ED pharmacists for uninsured patients.</p>

EMR TOOLS

EMR TOOLS - COWS Scoring

- Order placed by provider
- Completed by nursing staff



EMR TOOLS - ED MAT Order Panel

- Buprenorphine 8 mg SL
- CMP
- BAL
- UDS
- Urine preg test



EMR TOOLS – Provider Note Template

- HPI - Chief complaint, Criteria for OUD, Patient’s willingness to induce
- MDM -
 - COWS score
 - Discussion with patients including benefits and drawbacks of inducing bupe
 - Medications given and effect in ED
 - Plan for safe discharge



EMR TOOLS - ED DC Smart Set

- “Eddcmat”
- Diagnosis
- Outpatient orders and prescriptions
 - Ondansetron
 - Dicyclomine
 - Clonidine
 - Buprenorphine/naloxone
 - Naloxone
- Patient discharge instructions



DISCHARGE PROCESS

- Discharge order set
- Follow up closely
- Naloxone prescription
- 1 week of buprenorphine
- Other symptomatic cares



OUTCOMES OF 3-PRONGED TEACHING MODULE



OBJECTIVE FOR EVALUATION



- To assess the impact of a three-pronged education module on the knowledge and attitudes of emergency medicine physicians towards prescribing buprenorphine/naloxone for treatment of OUD.



METHODS



- Three-pronged educational module given to physicians in a large urban academic ED
- Voluntary, anonymous pre-post survey was administered
- Descriptive statistics applied



METHODS



Buprenorphine/naloxone (Suboxone) reduces the likelihood of death due to opioid overdose in patients with opioid use disorders.

Highly disagree
Disagree
Somewhat disagree
Somewhat agree
Agree
Highly Agree

• Online Qualtrics Survey

– Demographics

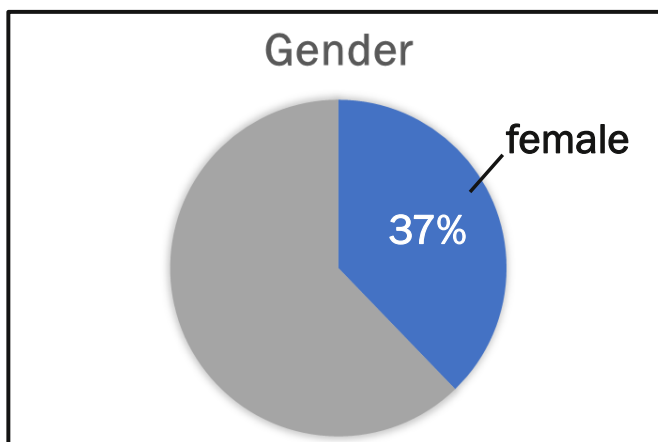
- Gender
- Role
- Experience

– 6-point Likert scale questions about prescribing buprenorphine/naloxone

- Understanding
- Confidence



RESULTS



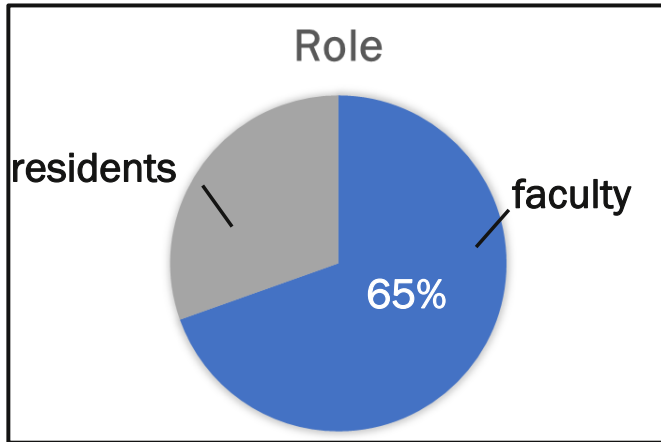
• Demographics

– N=49

- 40% response rate (49/122)



RESULTS

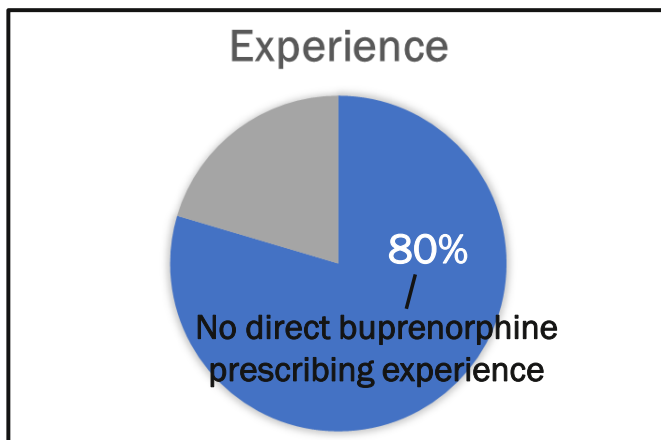


• Demographics

- N=49



RESULTS

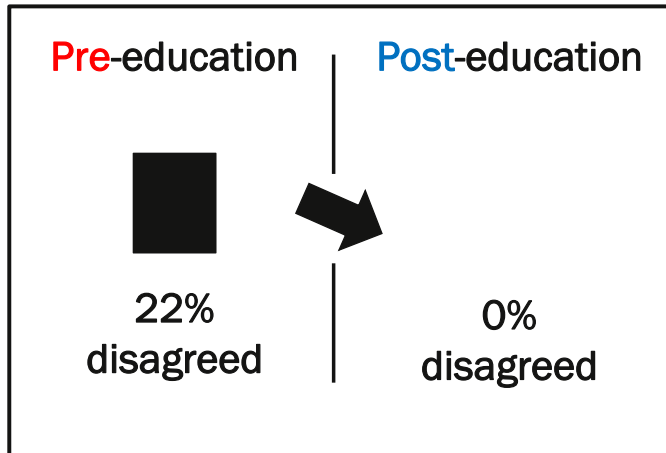


• Demographics

- N=49



RESULTS

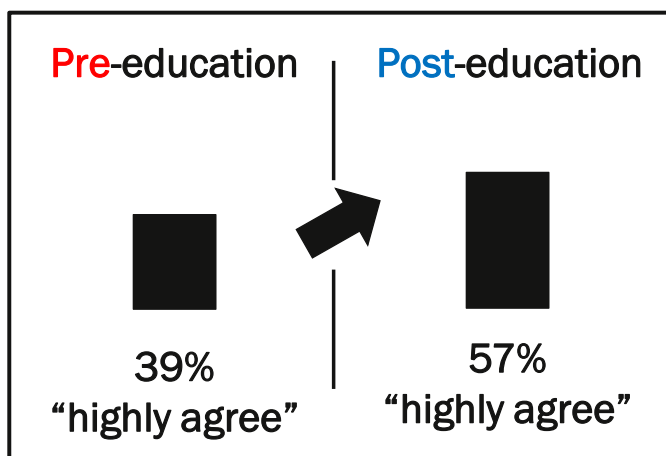


- Knowledge and Attitudes:

“Buprenorphine/
naloxone reduces the
likelihood of death
from opioid overdose”



RESULTS

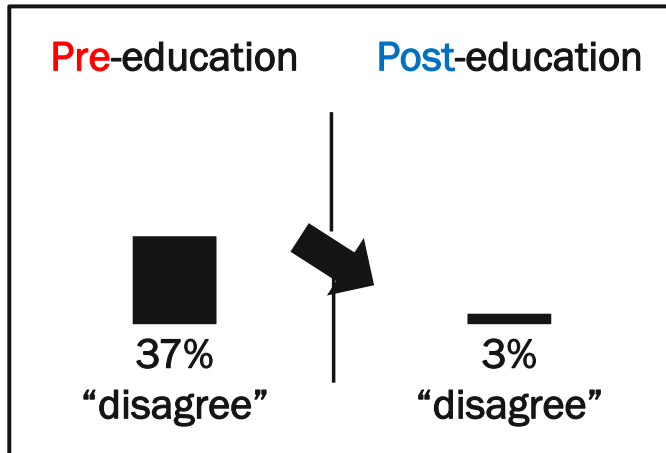


- Knowledge and Attitudes:

“Are you open to
prescribing
buprenorphine/
naloxone?”



RESULTS



- Knowledge and Attitudes:

“I feel confident in my ability to treat patients diagnosed with OUD with buprenorphine/naloxone”



CONCLUSION



- A one-hour, three-pronged educational module, including:
 - rationale for OUD treatment with buprenorphine
 - evidence-based ED buprenorphine induction pathway
 - electronic medical record tools

changed the attitudes of EM physicians towards buprenorphine treatment and demonstrated an increase in willingness and confidence to prescribe it for patients with OUD.



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- Understanding the Epidemic, CDC (<https://www.cdc.gov/drugoverdose/epidemic/index.html>)
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- *ED BUP Induction Pathway adapted using the AAEM White Paper and CA Bridge Program protocol*



QUESTIONS?

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