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Implementation of a pilot program for medication-assisted treatment in the emergency department

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Implementation of a Pilot Program for Medication-Assisted Treatment in the Emergency Department

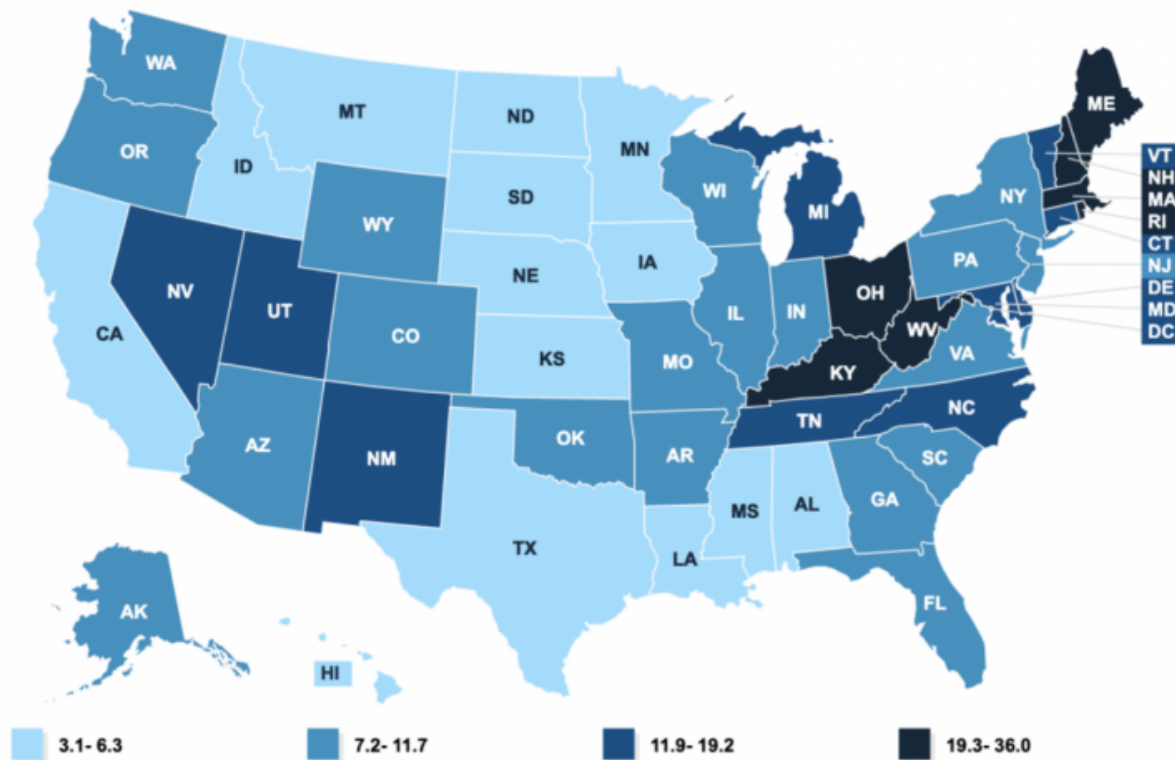
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The speaker has no actual or potential conflict of interest in relation to this presentation

The Opioid Epidemic

Fatal Opioid Overdoses in the United States per 100,000 people (2015)



Source: Kaiser Family Foundation analysis of Centers for Disease Control and Prevention (CDC), National Center for Health Statistics. Multiple Cause of Death 1999-2017 on CDC WONDER Online Database, released 2018.

Opioid Use Disorder Treatment

- Medication-Assisted Treatment (MAT)
 - Comprehensive treatment for substance use
 - Medication
 - Counseling
 - Behavioral Therapies
- Medications for Opioid Use Disorder (OUD)
 - Buprenorphine
 - Naltrexone
 - Methadone



Drug Addiction Treatment Act

- Drug Addiction and Treatment Act (DATA) of 2000
 - Waived practitioners can prescribe approved medications for the treatment of narcotic dependence
 - Requires additional training
 - Physicians – 8 hours
 - Nurse practitioners and physician assistants – 24 hours

Buprenorphine and Naloxone

- Buprenorphine
 - Partial mu receptor agonist
- Naloxone
 - Mu receptor antagonist
 - Inactive when taken orally, prevents misuse
- Combination buprenorphine/naloxone
 - Initiated when opioid withdrawal symptoms begin
 - Available in multiple formulations
 - Maximum dose of buprenorphine/naloxone sublingual tablets on initial treatment day is 8mg/2mg



Test Your Knowledge

- What is the maximum dose of buprenorphine/naloxone sublingual tablets approved by the FDA on day 1 of treatment
 - a) Buprenorphine/naloxone 4mg/1mg
 - b) Buprenorphine/naloxone 8mg/2mg
 - c) Buprenorphine/naloxone 16mg/4mg
 - d) Buprenorphine/naloxone 24mg/6mg

Test Your Knowledge

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 - c) Buprenorphine/naloxone 16mg/4mg
 - d) Buprenorphine/naloxone 24mg/6mg

Clinical Opiate Withdrawal Scale (COWS)

Increased
Pulse

Sweating

Restlessness

Dilated
Pupils

Bone and
Joint Aches

Piloerection

Yawning

Runny Nose

Tearing

Tremor

GI Upset

Anxiety

Mild withdrawal: 5-12 Moderate withdrawal: 13-24

Moderate/severe withdrawal: 25-36 Severe withdrawal: >36



Test Your Knowledge

- Which of the following is a potential sign of opioid withdrawal?
 - a) Dry mouth
 - b) Pinpoint pupils
 - c) Yawning
 - d) Bradycardia

Test Your Knowledge

- Which of the following is a potential sign of opioid withdrawal?
 - a) Dry mouth
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 - d) Bradycardia

Gaps to Care

- Barriers to treatment
 - Stigma
 - Lack of DATA waived providers
 - Fragmented care
 - Insurance and cost

Treatment Strategies

- Induction strategies
 - Office based
 - Home based
 - ED based

Background

Emergency department-initiated buprenorphine/naloxone treatment for opioid dependence

	Referral	Brief Intervention	Intervention and Buprenorphine/ Naloxone
Number	104	111	114
Male (%)	81 (77.9)	84 (75.7)	86 (75.4)
White (%)	78 (75)	80 (73.9)	88 (77.2)
Age (y)	31.4	31.9	31
Treatment at 30d (%)	38 (37)	50 (45)	89 (78)

Background

Retrospective analysis of newly initiated ED-based buprenorphine/naloxone induction at a single center

Number	219
Male (%)	123 (56.2)
White (%)	189 (86)
Age (y)	35
Buprenorphine/naloxone induction dose (mg)	7.7
MAT intake within 72h of induction	162 (74)
Treatment at 30d (%)	108 (49.3)

Dosing Protocols

Substance Abuse and Mental Health Services Administration

- Day 1
 - Buprenorphine/naloxone 4mg/1mg when withdrawal symptoms present
 - Observe 2+ hours and redose up to 8mg/2mg in 24 hours
- Day 2
 - If no symptoms since last dose, continue Day 1 dose
 - If symptoms returned from Day 1, add 4mg/1mg

American Society of Addiction Medicine

- Day 1
 - Start with buprenorphine/naloxone 2mg/0.5mg to 4mg/1mg
 - Reassess in 60-90 minutes
 - Repeat doses of 2mg/0.5mg to 4mg/1mg to effective dose

American College of Emergency Physicians

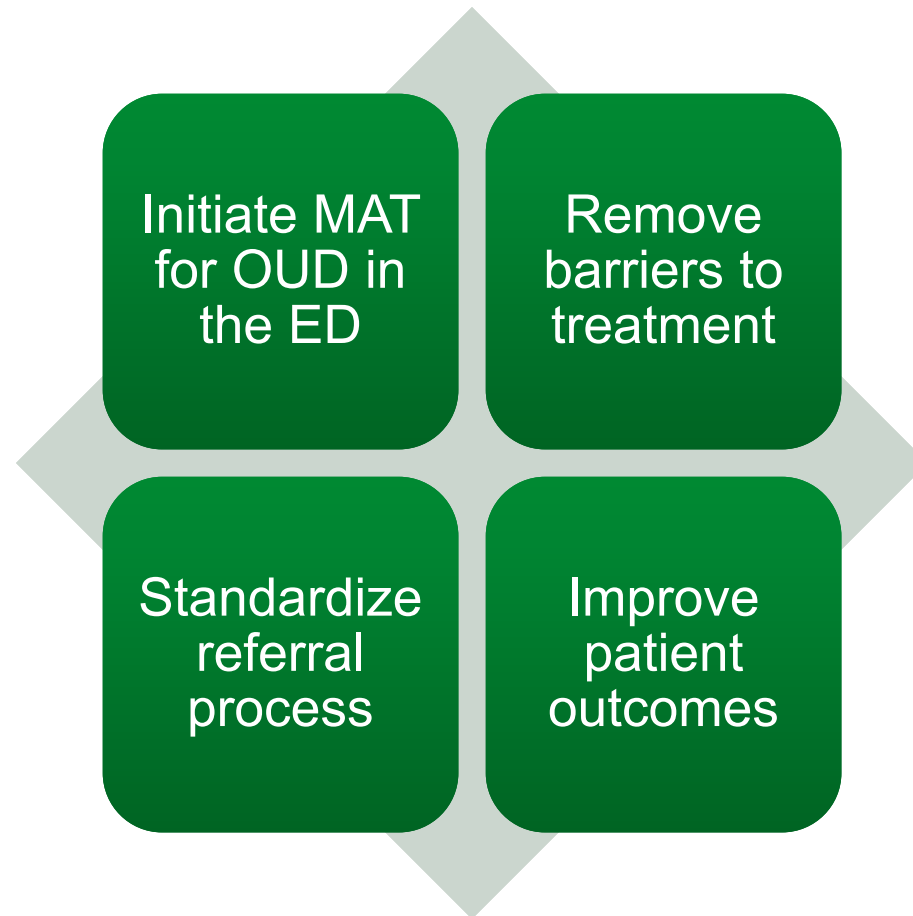
- Day 1
 - Start with buprenorphine/naloxone 2mg/0.5mg to 4mg/1mg
 - Reassess in 1-2 hours
 - Give additional 4mg/1mg if no precipitated withdrawal

Parkview Health



MEDICATION-ASSISTED TREATMENT IN THE ED

Purpose



Intended Population

Eligible



- ☐ Active withdrawal
- ☐ Willing to initiate treatment
- ☐ Adults 18 years of age and older

Ineligible



- ☐ Pregnancy
- ☐ Uncontrolled psychiatric condition
- ☐ Requiring opioids for pain
- ☐ Currently maintained on methadone
- ☐ Moderate to severe hepatic impairment

Implementation Timeline

September
2019

- Physician champion established
- Initial meetings with important stakeholders

October
2019

- Dosing protocol developed
- Create patient information

November
2019

- Consult and order set development
- Address legal roadblocks

December
2019

- Financial barriers and implications

Implementation Timeline

January
2020

- Pharmacy workflow
- Outpatient pharmacy involvement

February
2020

- Finalization of dosing and order sets
- Build order sets in electronic medical record system

April /May
2020

- Provider education
- Patient handout approval

June 2020

- Go live
- Troubleshooting

Order Sets

- ED orders
 - Labs
 - Consults
 - Peer Support
 - Psychiatry
 - Pharmacy
 - Medication
- Outpatient orders
 - Buprenorphine/naloxone kit
 - Naloxone
 - Comfort medications

Dosing Protocol

- Day 1
 - Dosed entirely while patient is in ED
 - Buprenorphine/naloxone 4mg/1mg when COWS ≥ 13
 - Re-evaluate COWS 1 hour after initial dose
 - Repeat buprenorphine/naloxone 4mg/1mg if COWS ≥ 5
 - Maximum buprenorphine/naloxone dose on day 1 is 8mg/2mg

Dosing Protocol

- Day 2
 - Start with total dose from day 1
 - If 3 or more withdrawal symptoms present, take additional buprenorphine/naloxone 4mg/1mg
 - Reassess in 2 hours
 - If still having symptoms take additional buprenorphine/naloxone 4mg/1mg
 - If no symptoms present take no additional medication
 - Maximum buprenorphine/naloxone dose on day 2 is 16mg/4mg

Dosing Protocol

- Day 3
 - Start with total dose from day 2
 - If 3 or more withdrawal symptoms and total dose from day 2 was not buprenorphine/naloxone 16mg/4mg, take an additional 4mg/1mg
 - Reassess in 2 hours
 - If still symptomatic take additional buprenorphine/naloxone 4mg/1mg if maximum dose not reached
 - Maximum buprenorphine/naloxone dose on day 3 is 16mg/4mg
- Day 4 follows the same protocol as day 3

Medication Kits and Distribution

- Buprenorphine/naloxone kit
 - Three day supply of buprenorphine/naloxone
 - Self-titratable
 - Provide coverage for delay in initial follow-up visit
 - Dispensed by pharmacist
- Pharmacist provides counseling and education to patient prior to discharge
 - Titration of medication
 - Signs and symptoms of overdose

Patient Handout



Starting treatment with buprenorphine-naloxone sublingual tablets

In Your Kit:

- 4 buprenorphine-naloxone 8 mg-2 mg tablets for a 3 day supply
- 1 pill splitter

You may need to split your tablets to get a smaller strength. Use the pill splitter to get a half tablet (4 mg) if you need it.



8 mg



4mg + 4mg

How to Take Your Medicine:

- Do not swallow the medicine or it will not work
- Place the tablet under your tongue
- Allow the medicine to dissolve for 10 minutes
- Do not eat or drink during the 10 minutes

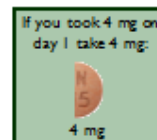
Treatment Day 1 Summary

You have had one day of treatment in the emergency department so far. Your total dose on day 1 was ____ mg. Doses are based on the buprenorphine part of the medicine.

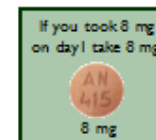
Treatment Day 2

Your day 2 dose depends on how much buprenorphine you took on day 1 and how you feel today. If you are having withdrawal symptoms, you may need a higher dose of medicine to start the day.

If you still feel good and do not have feelings of withdrawal, take the same dose as day 1.



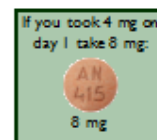
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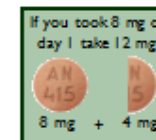
If you are having 3 or more of withdrawal symptoms, take an extra 4 mg with your dose from day 1.

Withdrawal symptoms are feelings like:

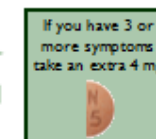
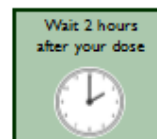
- Anxiety or restlessness
- Tearing up or runny nose
- Chills or sweating
- Diarrhea or stomach cramps
- Upset stomach or throwing up
- Bone or joint aches
- Goosebumps
- Twitching or shaking
- Yawning



OR



Wait 2 hours after your dose. If you feel good, you do not need any more medicine today. If you feel like you are still having withdrawal, take an extra 4 mg. You may repeat this step until you take 16 mg. Do not take more than 16 mg on day 2.



STOP

Do not take more than 16 mg on day 2

STOP

Day 2 total dose: ____mg

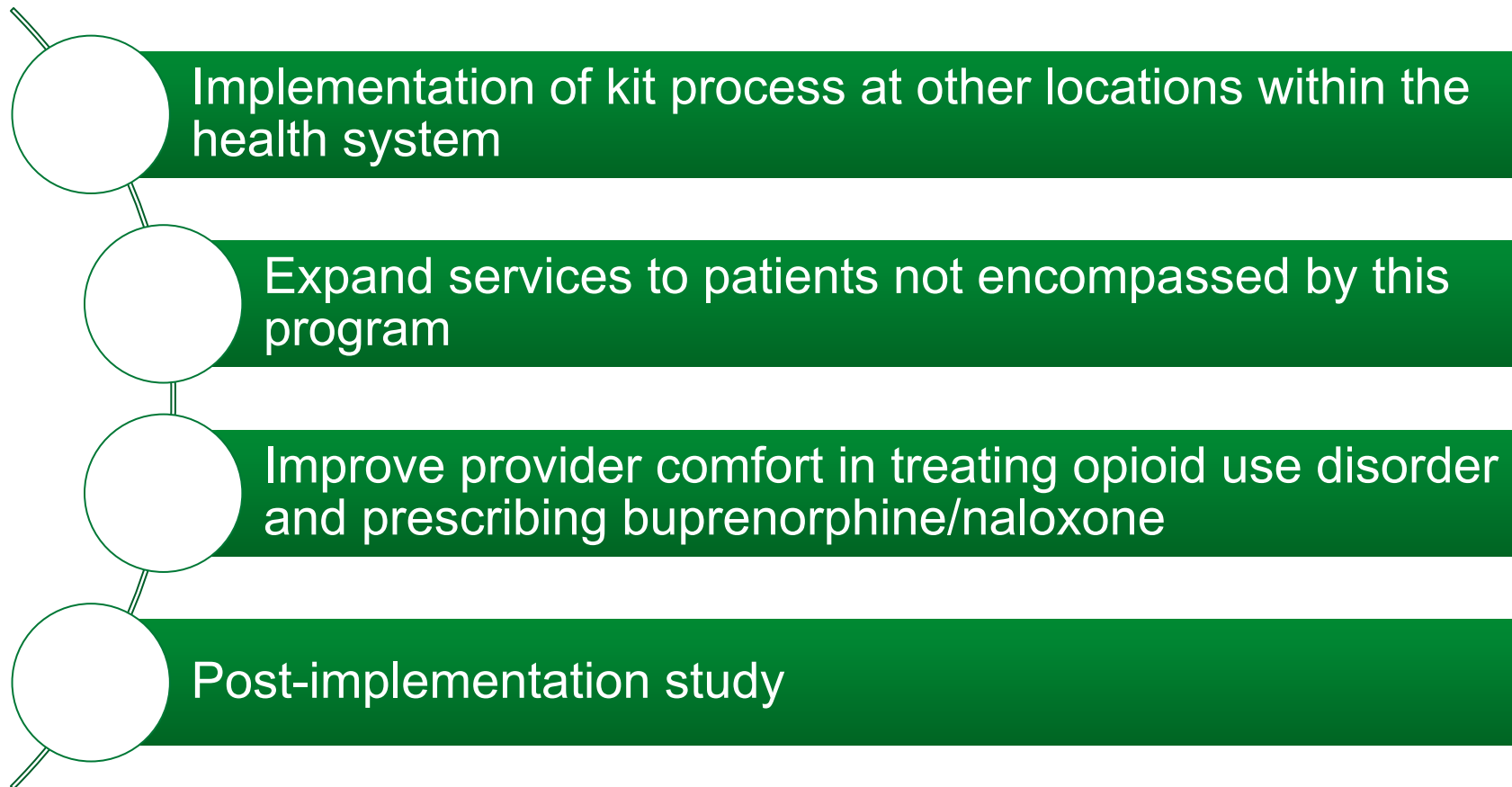
Staff Education

- Prescribers
 - DATA waivers
 - Availability of program
- Nursing
 - Clinical Opiate Withdrawal Scale (COWS)
 - Scheduling follow-up appointment with MAT Clinic
- Pharmacy
 - Patient counseling
 - Dispensing medication kit

Challenges

- Coordination of multiple specialties
- Variability between hospitals within the system
 - Processes and staffing
 - Outpatient pharmacy availability
- Specific patient population
- Provider unfamiliarity
- Timeline

Future Directions



Conclusions

- Creation of an ED-based MAT program is an multidisciplinary undertaking
- The pharmacist was involved in multiple roles in this pilot program
 - Development of dosing strategies and order sets
 - Addressing legal dispensing requirements
 - Creating and providing patient education

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