

OUD & MAR: Caring for Our Communities
Maine Independent Clinical Information Service
2018 Opioid Educational Outreach Module

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Lecture/slide content:

1. Title slide OUD & MAR: Caring for Our Communities Speaker note: explain acronyms: OUD=Opioid Use Disorder MAR=Medication Assisted Recovery, also called MAT=Medication assisted treatment
2. MICIS logo with MMA/DHHS (Ricker Hamilton, Commissioner version--not 'acting') logos smaller at bottom
3. Speakers Peter Michaud, RN, JD; Elisabeth Fowlie Mock, MD, MPH; Erika Pierce, PA-C, MSc.; Gordon Smith, JD
4. Disclosure slide
 - a. MICIS does not accept any money from pharmaceutical companies
 - b. This presentation includes "off label use" of medications
5. Learning Objectives
 - a. Appropriately recognize, diagnose and language opioid use disorder (OUD)
 - b. Compare pharmacologic treatments used in Medication Assisted Recovery (MAR)
 - c. Develop a strategy for treating acute pain for patients with OUD
 - d. Constantly consider harm reduction

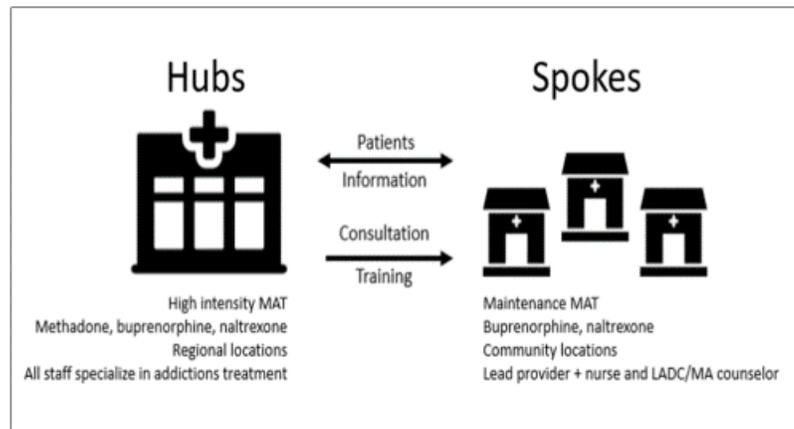
Speaker Notes: these objectives correlate to the 4 sections of the lecture and serve as an outline.
6. Learning materials
 - a. "un-ad"
 - b. OUD diagnostic criteria sheet
 - c. Buprenorphine prescriber training options sheet
 - d. Evidence & Resource document at MICISMAINE.org
7. **SECTION HEADER: OUD/MAR Myths Exercise** Speaker note: With 3-4 people near you, discuss your 'myth card.'
8. **SECTION HEADER: Opioid Use Disorder is a Chronic Disease**
9. *U.S. life expectancy declined for 2 years in a row (2014-2016), largely because of unintentional injuries (includes unintentional OD). (NCHS Data Brief No. 293, 2016) Speaker notes: Changes in death rates at younger ages have a larger impact on life expectancy than changes at older ages. The increases in death rates at the younger ages from 2015 to 2016 resulted in the decrease in life expectancy observed during that period.
10. *Maine Overdose Deaths—use the slide from the naloxone booklet/presentation and update numbers:
 - a. 2016 376
 - b. 2017 418
 - c. Speaker notes: of the deaths in 2016, 311 were attributed to opioids; 2017=354 (or approx. 85% of all OD in Maine involving opioids); in 2017 a 27% increase in deaths involving illegal fentanyl (fentanyl and fentanyl analogs); average overdoses involved 3 substances; 5 deaths attributed to carfentanil. In 2015, illicit opioids overtook prescription opioids in terms of being involved in more Maine OD deaths (likely due to cost issues). The average age of drug overdose deaths has remained stable at 41, or close to the average age of the population of the state.
11. Challenge question: name the four counties in Maine that had OD deaths higher than proportion to population size Speaker Note: Penobscot, Kennebec, Cumberland, York

12. ED visits in Maine increased 34% July 2016-September 2017 and Maine was one of 16 states with high prevalence of overdose mortality; Massachusetts, New Hampshire, Rhode Island had 'nonsignificant' decreases (<10%) (Vivolo-Kantor, 2018)
13. "Words are important. If you want to care for something, you call it a 'flower'; if you want to kill something, you call it a 'weed'. Don Coyhis, Native American Recovery coach Speaker note: address some of the terms in common use that can be avoided: drug abuse, abuser, addict, dirty (esp dirty urine)
14. The words you use to describe OUD and an individual with OUD are powerful. Providers should adopt terminology that will not reinforce prejudice, negative attitudes, or discrimination. Speaker notes: "Bottom line — language matters — it affects how we understand things and how we treat them. If we expect to make a difference in the crisis of people dying from drug overdoses — and the 2-3 times as many dying from alcohol use disorders — we need to be clear in our language as a critical step in eliminating the stigma that is killing people." Omar Manejwala, MD, Addiction Specialist
15. "There are several studies that demonstrate the negative impact of using demeaning, pejorative, or stigmatizing language — such language doesn't just hurt feelings — the research shows that when such language is used people are less likely to get the medical care they so desperately need." Omar Manejwala, MD, Addiction Specialist
16. OUD: typically, a chronic, relapsing, yet treatable illness; associated with significantly increased rates of morbidity and mortality (Strain, 2018) Speaker notes: opioid addiction corresponds to moderate-severe OUD
17. **SECTION HEADER: We Need to Be Prepared to Recognize and Treat OUD**
18. Group exercise: reviewing the diagnostic criteria for OUD Speaker note: "Opioid Abuse" and "Opioid Dependence" became "Opioid use disorder" with publication of DSM-5(TM) in 2013 (actually all substance use disorders were similarly renamed)
19. RECOVERY--a process of change, improving health and wellness, living self-directed lives, striving to reach full potential. No "one size fits all" approach. (SAMSHA, 2012)
20. *4 Dimensions that support a life in recovery: Health, Home, Purpose, Community (SAMSHA 2012) Speaker notes: (taken directly from SAMSHA website) **Health**—overcoming or managing one's disease(s) or symptoms—for example, abstaining from use of alcohol, illicit drugs, and non-prescribed medications if one has an addiction problem—and, for everyone in recovery, making informed, healthy choices that support physical and emotional well-being, **Home**—having a stable and safe place to live, **Purpose**—conducting meaningful daily activities, such as a job, school volunteerism, family caretaking, or creative endeavors, and the independence, income, and resources to participate in society, **Community**—having relationships and social networks that provide support, friendship, love, and hope
21. MAR--effective, cost effective and cost beneficial. Medications: reduce illicit opioid use, retain people in treatment, reduce risk of opioid overdose death--better than treatment with placebo or no medication.
22. Who can prescribe? Buprenorphine, Methadone, Emergency methadone or buprenorphine (72h), naltrexone Speaker note: Naltrexone not to be confused with naloxone. References in this presentation & materials to "buprenorphine" or "bup" imply the buprenorphine-naloxone combination; references to the monoprodut will say 'buprenorphine monoprodut' or "buprenorphine only produt. Buprenorphine requires additional training and a special license,

methadone can only be prescribed by a designated treatment program, naltrexone has no limitations, any prescriber can administer (not dispense nor prescribe) methadone or buprenorphine for up to 72 hours to bridge pts/treat acute w/d; inpatient medical providers can order all three without restriction. The Drug Addiction Treatment Act of 2000 (DATA 2000) governs training and prescribing of buprenorphine, the Comprehensive Addiction and Recovery Act of 2016 (CARA) increased limits and created rules for NP/PA prescribing. Buprenorphine training: 8 hours for MD/DO, 24 hours for NP/PA, apply for special DEA number (begins with an 'X', thus referred to as an X-waiver)

23. Newer buprenorphine formulations: subdermal implant (6 months) and injection (monthly)
24. Initiation of naltrexone must be preceded by withdrawal from opioids (preferably medically supervised); oral naltrexone has higher dropout rates than injectable. Speaker note: More recent data re effectiveness of naltrexone: A 6 month open-label, randomized controlled, comparative effectiveness trial at 8 US centers (2014-2016) found that, once successfully initiated, both injectable naltrexone and buprenorphine were equally safe and effective. One difficulty was patients relapsing/dropping out prior to initiation of naltrexone (28%), given required abstinence up front. (Lee, 2018)
25. Recovery occurs via many pathways: one year recovery rates: 50% with medication-assistance, 10% without medication (multiple sources cited in references)
26. Which patients are best suited for tx in primary care settings? Speaker notes: Selection criteria for successful tx in primary care settings: stable/controlled medical comorbidities, stable/controlled psychiatric comorbidities, safe, substance-free living environment. Patients more suitable for methadone tx: continued opioid use despite bup tx, poor response to bup, previous misuse or diversion of bup, poorly controlled psychiatric illness, co-morbid SUD (especially severe BZDP/EtOH use). Increased tx risks: active benzodiazepine/alcohol/sedative use disorders, unstable living environments (lack of food and shelter), uncontrolled psychiatric comorbidities; Personpower in Maine and Nationally is insufficient to meet demand for OUD tx
- 27.

Hubs & Spokes Collaborate



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28. slide from LML
29. *pie chart* January 2018: Maine buprenorphine prescribers 634: 348 docs (30 limit), 145 docs (100 limit), 38 docs (275 limit), 88 NPs (30 limit*), 15 PAs (30 limit*) *all NP/PA are in first year of license with 30 pt limit Data: SAMSHA, January 2018, Abstracted by Lisa Letourneau, MD, MPH
30. *(maybe a pie chart coming out of a pie chart) National buprenorphine prescriber data: 2% of all prescribers have a x-waiver, ~50% providers with X-waiver ever prescribe, ~50% of those prescribe only 1-4 patients (SAMSHA)
31. How long to treat? Indefinite, some pts may slowly taper and wean after 1-2 years of stability, some pts remain on low dose therapy long-term, some pts may go on and off treatment
32. "Use of marijuana, stimulants, or other addictive drugs should not be a reason to suspend OUD tx. However, evidence demonstrates pts actively using substances during OUD tx have a poorer prognosis. The use of EtOH, bzdop and other sedative hypnotics may be a reason to suspend agonist tx—safety concerns related to respiratory depression." (ASAM Guideline, 2015)
33. 10 Guiding Principles of Recovery (SAMSHA, 2012) (graphic)
<https://store.samhsa.gov/shin/content//PEP12-RECDEF/PEP12-RECDEF.pdf>
34. Counselors help clients by...addressing the challenges & consequences of OUD
35. Barriers and biases exist among physicians and providers: Emergency physicians at Hopkins had lower regard for pts with SUDs than other medical conditions with behavioral components. 54% at least "somewhat agree" that they prefer not to work pts with SUD who have pain (Mendiola, 2018)
36. **SECTION HEADER: Acute Pain in Patients with OUD**
37. Baseline opioid maintenance therapies are not adequate for pain control in patients with acute moderate to severe injuries and surgeries
38. In patients on methadone and buprenorphine: verify the dose, maximize nonopioid pain treatments (pharm and nonpharm), consider increasing or splitting dose, add higher dose short-acting opioids for 3-5d Speaker notes: Methadone: verify dose directly with clinic, maximize nonopioid pain treatments (pharmacologic and nonpharmacologic), consider increasing dose, consider splitting

dose to q6-8h, add short-acting opioids—likely high doses at short intervals will be needed, avoid mixed agonist/antagonists. Buprenorphine: maximize nonopioid pain treatments (pharmacologic and nonpharmacologic), consider temporary dose increase, consider splitting dose to q12-8h, add short-acting opioids with starting doses higher than opioid naive pts (try fentanyl or tramadol first) Many published guidelines and recommendations talk about stopping bup in anticipation of surgery, etc. However, expert opinion by experienced prescribers urges continuing bup in many cases (with changes as above as above). If bup is stopped with other opioids on board, monitor for respiratory depression due to mu receptor hypersensitivity. Provide naloxone. In patients on implantable or injectable bup, use “full opioids” as needed and monitor for respiratory depression. High doses are likely to be needed. If rapid bup taper is necessary, dose can be reduced by 2 mg every 1-3d (slow, gradual tapers over months are more effective and better tolerated, in general).

39. In patients on Naltrexone: try to delay elective interventions, maximize nonopioid pain treatments (pharmacologic and nonpharmacologic), if emergency may need higher than usual doses of opioids to overcome—high risk of respiratory depression Speaker notes: limited response to opioid analgesics, use NSAIDs including ketorolac, discontinue prior to anticipated surgery, if possible delay surgery to allow levels to drop, in emergency higher than usual doses can overcome naltrexone’s effects-high risk of respiratory depression
40. Actively using heroin/other opioid: try to get a history of ‘dose,’ maximize non-opioid modalities, consider tramadol, always try to use oral medications in preference over IV, consider increased doses post-operatively, avoid take-home prescriptions in most cases Speaker notes: according to EFM calculations the typical street dose of heroin, 0.1g is roughly equivalent to 400 MME (2-2.5mg IV heroin=10 po MME), but heavy users can consume up to 1g/d (4000 MME), heroin is the shortest acting morphine, so very quick onset of action but short duration of effect (<https://en.wikipedia.org/wiki/Equianalgesic>);
41. Contact recovery medication prescriber proactively or as soon as possible in unscheduled/emergent situations to discuss acute pain needs, taper schedule and who will handle prescribing
42. **SECTION HEADER: Hardwire Harm Reduction Strategies in All Medical Practices**
43. Social determinants of Health Contribute to the Opioid Epidemic: Homeless persons were 9x more likely to die from OD than persons stably housed. A “housing first” approach to recovery increases likelihood of success. (Baggett, 2013)
44. Harm Reduction: Prescribe opioids using conservative management strategies, Limit supplies to 3-5 days for acute pain, Exhaust nonopioid and nonpharmacologic treatment strategies (for acute or chronic), Document informed consent.
45. Consider naloxone prescriptions for: all patients on chronic opioids, especially at doses over 50 MME; any patient co-prescribed benzodiazepines/sedatives or actively using alcohol; friends or family members who might witness overdose; patients with OUD being released from incarceration or treatment programs; patients with history of overdose; patients with underlying respiratory disease, especially sleep apnea, all patients in MAR
46. Summary slide: Key messages:
 - a. The words you use to describe OUD and an individual with OUD are powerful.
 - b. Recovery is possible and more likely when using medications combined with counselling
 - c. OUD medications reduce illicit opioid use, reduce overdose deaths, decrease crime and retain people in treatment/counselling
 - d. Treat acute pain with multiple modalities for all patients, including those in recovery

- e. Recommend naloxone prescriptions for all patients in recovery
47. Last slide: website address, facebook page invite, ? link for full references on MICISMAINE

UN-AD (Unadvertisement)

Front page

Key points

Addiction is a Disease: Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual pathologically pursuing reward and/or relief by substance use and other behaviors.

Evidence-based Treatments are Available: To ensure the best treatment plan, work through your primary care medical home and seek a provider experienced in treating addiction.

Recovery is Possible: Recovery from OUD is best achieved through a combination of self-management, mutual support and professional care provided by trained and certified clinicians.

A Qualified Workforce is Essential: 2.5 million Americans have OUD, yet only 10-40% receive proper treatment. There is a great need to expand the medical and counselling workforce to address this treatment gap.

(Adapted from ASAM materials, used by permission; CDC data)

Take Home Messages

- The words you use to describe OUD and an individual with OUD are powerful.
- Opioid dependence is a chronic disease and may require long-term treatment.
- Buprenorphine does not “trade one drug for another.” Many patients on buprenorphine return to ‘normal’ life functioning (i.e. avoid crime, maintain employment, fulfill parenting obligations).
- Medication-assisted recovery generally retains 50% of patients at one year. Abstinence-based recovery retains 10%.
- Physicians, physician assistants and nurse practitioners should consider treating opioid use disorder by becoming a certified buprenorphine prescriber or implementing naltrexone use.
- Treat acute pain in patients in recovery first with candid conversation. Maximize non-opioid and non-pharmacological therapies. Split or increase recovery medications, add short-acting, short-term opioids as a last resort and discuss the risk of relapse.
- Provide naloxone prescriptions for all patients in recovery, as well as anyone who might witness an overdose.

Back Page:

Brief Comparison of MAR Pharmacological Treatments

	Methadone	Buprenorphine	Naltrexone
Mechanism	Agonist	Partial agonist	Antagonist
Actions	*Suppresses withdrawal & craving	*Suppresses withdrawal & decreases cravings *Blocks reinforcing effects of abused opioids	*Displaces mu agonists & blocks effects of opioids *Reinforces abstinence by preventing intoxication and physiological dependence
Pros	*No euphoria at stable doses *FDA approved in pregnancy *Option for severe dependence or buprenorphine treatment failures	*Safer than methadone *Naloxone decreases desirability of misusing by injection *Greater accessibility *Easier than methadone to discontinue	*Any prescriber can prescribe *Not abusible *No opioid side effects *Oral tablets cheapest MAR option
Cons	*Increased respiratory depression, sedation, QT prolongation *Only available at certified facilities *Abuse potential	*Abuse potential *Precipitated withdrawal *Opioid side effects	*Precipitated withdrawal *Increased risk of fatal overdose if using opioids *IM form expensive

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Full References:

American Society of Addiction Medicine, 2015: The ASAM National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use.

Baggett et al, 2013: Mortality Among Homeless Adults in Boston: Shifts on causes of Death Over a 15-year Period. *JAMA Int Med*, 173(3):189-195.

Center for Behavioral Health Statistics and Quality, 2017. Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Dowell et al, 2016. CDC Guideline for Prescribing Opioids for Chronic Pain—United States, 2016. *MMWR Recomm Rep*, 65(RR-1):1-49.

Ducharme et al, 2008. State Policy Influence on the Early Diffusion of Buprenorphine in Community Treatment Programs *Substance Abuse Treatment Prevention Policy*, 3(17).

Gibson et al, 2008. Exposure to opioid maintenance treatment reduces long-term mortality. *Addiction* 103:462.

Katzman et al, 2018: An Innovative Model for Naloxone Use within an OTP Setting: A Prospective Cohort Study. *J Addict Med* 12(2):113-118.

Lee et al, 2018: Comparative effectiveness of extended-release naltrexone versus buprenorphine-naloxone for opioid relapse prevention (X:BOT): a multicenter, open-label, randomized controlled trial. *Lancet*, 391(10118):309-318.

Liebschutz et al, 2014: Buprenorphine treatment for hospitalized, opioid-dependent patients: a randomized clinical trial. *JAMA Int Med*, 174:1369.

Maine Attorney General's Office, February 2018, Maine State Drug Death Statistics, www.maine.gov/ag/news/index.shtml

Manejwala, 2018: quoted in "Shattering the Myth of the 'Addicted Baby,'" by Brian Cuban, Above the Law (published online 3/9/18), <https://abovethelaw.com/2018/03/shattering-the-myth-of-the-addicted-baby/>

Mattick et al, 2014: Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database Syst Rev*, (2), CD002207.

Mendiola et al, 2018: An Exploration of Emergency Physicians' Attitudes Toward Patients with Substance Use Disorder. *J Add Med*, 12(2):132-135.

Minozzi et al, 2011: Oral naltrexone maintenance treatment for opioid dependence. *Cochrane Database Syst Rev*, CD001222.

National Center for Health Statistics, 2017. Mortality in the United States, 2016, NCHS Data Brief No. 293, PDF version, <https://www.cdc.gov/nchs/products/databriefs/db293.htm>.

Salisbury-Afshar, 2018: Treating Opioid Use Disorder as a Family Physician: Taking the Next Step (Editorial). *Am Fam Phys*, 97(5):302-306.

Schwartz et al, 2013: Opioid agonist treatments and heroin overdose deaths in Baltimore, Maryland, 1995-2009. *Am J Public Health*, 103(5): 917-922.

Strain, 2018: Pharmacotherapy for opioid use disorder. *UpToDate*, last updated 1/15/18.

Soyka, 2012: Criminal Behavior in Opioid-Dependent Patients Before and During Maintenance Therapy: 6-year Follow-Up of a Nationally Representative Cohort Sample. *J Foren Sci*, 57(6), 1524–1530.

Substance Abuse and Mental Health Services Administration (SAMSHA), 2012. Recovery and recovery support [webpage]. <https://www.samhsa.gov/recovery>, accessed 3/20/18, and SAMSHA's Working Definition of Recovery: 10 Guiding Principles of Recovery, Publication ID: PEP12-RECDEF, 2012.

Prescriber's Letter/Therapeutic Research Center, 2018: Management of Opioid Dependence. Resource #340106. And 2017: Consider Treating your Opioid-Dependent Patients with Buprenorphine/Naloxone. Resource #330102.

Thomas et al, 2014: Medication Assisted Treatment with Buprenorphine: Assessing the Evidence. *Psych Serv*, 65(2):158-170.

Vivolo-Kantor et al, 2018: Vital Signs: Trends in Emergency Department Visits for Suspected Opioid Overdoses—United States, July 2016-September 2017. *MMWR* 67(9):279-285.

Volkow et al, 2014: Medication-assisted therapies—tackling the opioid-overdose epidemic. *N Engl J Med*; 370(22):2063-2066.

Weiss et al, 2017: Opioid-related inpatient stays and emergency department visits by state, 2009-2014. HCUP Statistical Brief No. 219. Rockville, MD: Agency for Healthcare Research and Quality.

Zoorob et al, 2018: Buprenorphine Therapy for Opioid Use Disorder. *Am Fam Phys*, 97(5):313-320.

OUD & MAR: Caring for Our Communities

Video resources:

Diversion Alert/recoveryinme video

<https://www.youtube.com/watch?v=q1lSmWWwM40>

2 Videos from CDC:

<https://www.cdc.gov/rxawareness/resources/video.html>

RX Awareness Campaign Trailer (1:53)

Brenda's Rx Awareness Story (0:30) "How can I be addicted to these? I get them from my doctor. It kills your soul and makes you feel worthless."

Leighton MAT trailer

https://www.youtube.com/watch?v=WjtYp_pMUqI

Recommended print/online resources:

SAMHSA Tip 63: Medications for Opioid Use Disorders (online and print, free), February 2018.

<https://store.samhsa.gov/product/TIP-63-Medications-for-Opioid-Use-Disorders-Full-Documents-Including-Executive-Summary-and-Parts-1-5-/SMA18-5063FULLDOC>

Providers' Clinical Support System (funded by SAMSHA), <https://pcsnow.org/education-training/overview-of-mat/>

Substance Abuse and Mental Health Services Administration (SAMSHA),

<https://www.samhsa.gov/medication-assisted-treatment/treatment>

National Institute on Drug Abuse (NIDA), <https://www.drugabuse.gov/publications/effective-treatments-opioid-addiction/effective-treatments-opioid-addiction>

Use of Medications in the Treatment of Addiction Involving Opioid Use GUIDELINES Pocket Guide (ASMA Guidelines), available through American Society of Addiction Medicine, free PDF version, \$9.95 print version, also available as an app; <https://www.asam.org/resources/guidelines-and-consensus-documents/ngp>

Eric Haram's XL MAT toolkit, under Medication Assisted Treatment tab, first item:

<https://mainequalitycounts.org/what-we-do/population-health/naloxone-and-mat-resources/>

Buprenorphine workflow sheet: <https://docs.clinicaltools.com/pdf/Buppractice/pathway.pdf>

January 2018 policy piece on the opioid epidemic: <https://newsatjama.jama.com/2018/01/03/jama-forum-a-new-years-wish-on-opioids/>

Clinical Resource, *Management of Opioid Dependence. Pharmacist's Letter/Prescriber's Letter*. Updated January 2018 (subscription required)

<https://prescriber.therapeuticresearch.com/Content/Segments/PRL/2015/Aug/Management-of-Opioid-Dependence-8725>

Evidence/Resource document

In 2016, 3.5% of Americans aged 12 and older misused opioid pain medications. 6.5/1000 Americans aged 12 and older have OUD (2016) ~75% prescription opioids, ~25% heroin. (Center for Behavioral Health Statistics and Quality, 2017). These numbers extrapolated to Maine: 8645 people or the equivalent Maine town populations of ~8645: Waterville x1/2, Freeport x1, Millinocket x2, Bethel x3 or Machias x4. Opioid overdose deaths continued to exceed deaths from motor vehicle crashes in 2016. (CDC, 2017)

Homeless (9X increased risk OD death); Recently released from prisons & jails (up to 12X increased risk OD death) In one study, overdose deaths accounted for 1/3 of all deaths in homeless persons younger than 45, with opioids accounting for 81% of ODs. (Baggett, 2013) US ED visits (ages ≥11) for opioid OD increased 30% overall July 2016-September 2017 (Vivolo-Kantor, 2018) Opioid-related inpatient hospital stays increased 64% nationally from 2005–2014. (AHRQ, 2017)

OUD is linked with high rates of illegal activities and incarceration. A German study found nearly 85% of patients had been charged or convicted prior to enrollment. 2700 pts, 70% follow-up rate, baseline rates of criminality: drug-related offenses (67%), acquisitive crimes (49%) and violent crimes (22%) for a total of 85% at baseline, declined to 18% for the final 12 mos before a 6 year f/u (Soyka, 2012)

Treatment with medication must be supplemented with counselling, recovery support services, behavioral health services and medical care. Expanding access to MAR is an important **public health strategy** as a wide gap exists between treatment need and availability. Estimated only 40% of pts with OUD received medication in 2012. (Volkow 2014) Other estimates are that only 1 in 10 persons with SUD receive treatment. (ASAM data, 2018)

All 3 medications (extended release injectable naltrexone in that case) were found to be more effective in reducing opioid use than no medication in randomized clinical trials. (SAMSHA Tip 63, ES-2, references 6-10) Methadone and buprenorphine are associated with reduced risk of overdose death (SAMSHA Tip 63, ES-2, references 11-15) Patients randomly assigned to receive either methadone or buprenorphine at 10 years follow-up were found to have an association between duration of treatment and lower rates of mortality. (Gibson, 2008) Patients on methadone maintenance had a 40% reduction in mortality (all-cause and overdose) compared to pre-treatment predicted mortality and a 70% reduction in mortality risk compared to untreated heroin users. (Strain, p.5, 2018)

Several randomized trials found better methadone efficacy at doses of 80-100mg/d vs lower doses; great variability in methadone doses is observed (Strain, p.7, 2018) Speaker note: methadone doses used for OUD exceed the lethal dose for opioid-naïve adults while they typical bup dose is well below the threshold. A study of >16k pts with OUD found 4x greater rate of mortality from OD assoc with methadone tx than with bup. (Strain, p.16, reference 100).

Naltrexone is most effective in pts who are highly motivated, have mild OUD or legally mandated tx and/or with close supervision; once monthly injection is available and more effective. A naloxone challenge test might be considered before initiating naltrexone to avoid severe, prolonged precipitated w/d. (If w/d occurs, naloxone's short half-life means sx's will resolve in 1-2 hrs and naltrexone should not be administered.) In three trials where pts were forced to adhere to daily oral naltrexone, it was

more effective than placebo. In a meta-analysis, naltrexone compared to placebo or no medication found no difference although trials limited by high dropout rates. (Minozzi, 2011)

Extended release (injectable) naltrexone was found to be more effective than placebo in several randomized trials. Particularly for pts in the criminal justice system, it was more effective than usual treatment. Trials were again limited by drop out rates. (Strain, p.14, 2018) Speaker note: naltrexone may be a suitable third-line treatment for pts with moderate-severe OUD who have poor response to bup & methadone. Some occupations prohibit agonist use, in which case naltrexone is preferred over no medication.

Multiple successful models for safe and effective MAR in primary care: Agency for Healthcare Research and Quality reviewed 12 different models (Table 2, American Family Physician, 2018) Different levels of care for substance use disorders: Level 1 Outpatient, general medical or addiction, Level 2 Specialty addiction intensive outpatient (IOP) or opioid treatment program/methadone clinic (OTP), Level 3 Residential, Level 4 Hospital

Recommended diversion prevention strategies: frequent (weekly at first) office visits, short-term prescriptions, urine drug testing, pill/strip counts, regular PMP checks (required q90d by ME law). Speaker notes: supervised urine collection has pros and cons, urine drugs tests differ and need to test for bup specifically, send out confirmation can be quite costly. Despite naloxone component, buprenorphine is abusable. Monoproducts are high risk for diversion and misuse. Combination tablets may be crushed and snorted (faster "high" than sl despite some naloxone absorption). Tablets and films can be dissolved and injected—the half-life of the naloxone is shorter than the half-life of the buprenorphine. (Therapeutic Research Center, 2018)

Initiation of buprenorphine tx=induction, usually in the office but increasingly at home, titration of dose over 2 days, pt must be in mild-moderate w/d to avoid precipitated w/d (last short-acting use >12-24h, last long-acting dose >24h) Maximum FDA approved dose 32 mg/d, but no evidence of increased efficacy over 24mg/d, most clinics max doses at 16mg/d, many use doses 6-12mg/d. Dose buprenorphine once daily, due to half-life, some patients can be maintained on dosing every other day or three times weekly

Consider initiating buprenorphine treatment during hospitalizations for medical complications, link to outpatient treatments. Speaker notes: Trial randomly assigning to bup detox vs bup tx found tx pts more likely to be in tx and less likely to be using illicit opioids at 6 mo f/u (incidence rate ratio 0.6) (Liebschultz, 2014)

Multiple types of psychosocial augmentations have been described: individual and group addiction counselling, mutual help group participation, contingency management. Abstinence-based therapy can be a nonmedical psychosocial treatment, most suited for pts with mild OUD who are highly motivated. Methadone clinics are required to provide psychosocial treatment (degree is variable); buprenorphine prescribers must certify the capacity to refer pts for counselling but pts are not required to receive psychosocial care (unless the provider requires participation)

Motivational Interviewing: When pts are ambivalent about making a change, they put up defenses: argue-challenge or discount provider statements, interrupt-take over or cut off conversation, deny-blame, disagree, excuse, minimize, ignore-not respond, not pay attention. Provider techniques:

reflection-rephrase the statement neutrally, or agreement with a twist-agree but change direction.
Motivational Interviewing: “OARS”, open-ended questions, affirmations, reflective listening, summarize with attention to any change statements

Pregnancy: methadone is FDA approved, buprenorphine (all versions) is not. Stable methadone doses reduce fluctuations in maternal opioid levels that occur with illicit use and thus reduces stress on the fetus; also avoids harmful compounds found in many street products; breastfeeding recommended as long as no illicit use nor HIV (Strain, p.7, 2018) Buprenorphine monoproduct is recommended due to theoretical risk of w/d in fetus, emerging evidence that combination product is not harmful yet most still recommend monoproduct. NAS (now NOWS) incidence is similar for both medications but severity of symptoms, need for medications and length of stay reduced in babies of moms treated with buprenorphine vs methadone (Thomas, 2014 and Sullivan, 2014) Speaker note: NAS=neonatal abstinence syndrome, NOWS=neonatal opioid withdrawal syndrome

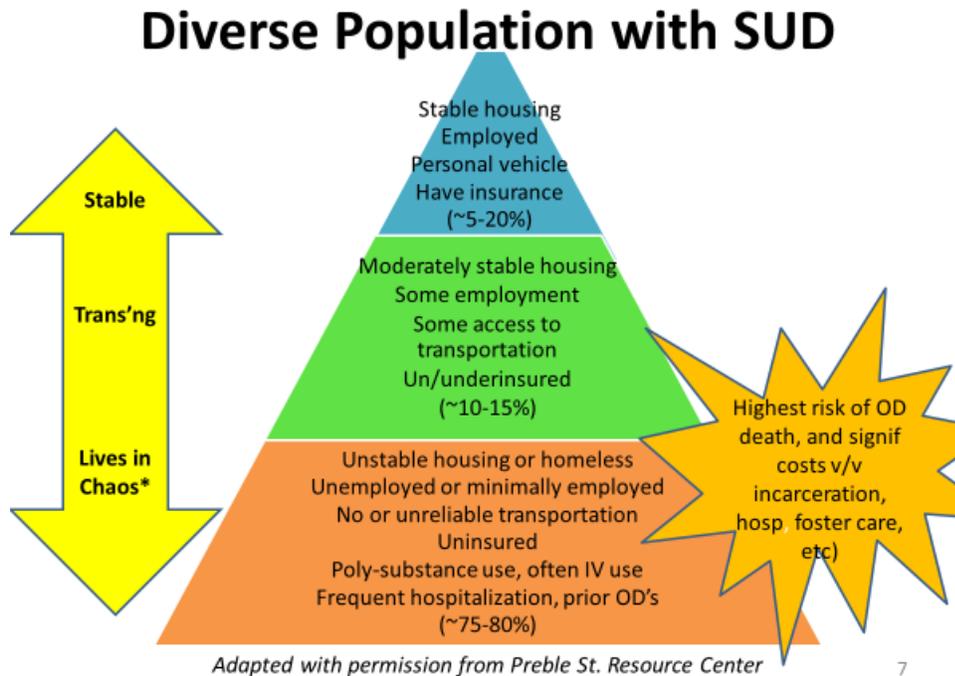
Policy implications: Medicaid coverage for buprenorphine is a significant predictor of its adoption by community-based treatment programs. (Ducharme, 2008)

Pts at highest risk of OD when leaving medication assisted recovery/treatment and after a period of abstinence such as during incarceration, tolerance is reduced, illicit dose is misjudged. Tolerance to euphoric effects remains higher than tolerance to respiratory depressant effects.

Naloxone use in recovery, 3 month study: 31 of 215 (13%) participants in recovery center naloxone training and distribution program used their naloxone on 38 community members; only 1 participant required naloxone herself. The auto-injector version was used, 68% of reversers were female; 80% of participants were receiving methadone, 17% buprenorphine, 3% naltrexone; all were in behavioral therapy programs associated with the clinic. All OD reversals successful, all for heroin; 50%=1 dose naloxone, 45%=2 doses, 5%=3 doses. 87% of reverses were known to the participant (acquaintance, friend, family member, significant other), 13% were strangers; a high percentage of participants in this study have either witnessed (87%) an overdose event or have been rescued (44%) by naloxone previously. (Katzman, 2018)

Thinking about patients with SUD/OD

Graphic adapted from Preble Street Clinic Resource Center, Portland, ME, by Lisa Letourneau, MD, MPH with grant funding from Maine Health Access Foundation



OD/MAR related Evidence-Based Medicine (EBM) recommendations

SORT RECOMMENDATIONS (AAFP, American Family Physician) ALL LEVEL C

- combination bup products are preferred because of lower abuse potential
- patient selection is one key to successful MAR in primary care
- patients should be experiencing mild-moderate w/d before starting bup to reduce precipitated w/d
- validated clinical scales that measure w/d sx's may be used
- clonidine 0.1-0.3mg q6-8h can assist in the treatment of OUD

Key: SORT evidence rating system—Strength Of Recommendation Taxonomy

A=consistent, good-quality patient-oriented evidence

B=Inconsistent or limited-quality patient-oriented evidence

C=consensus, disease-oriented evidence, usual practice, expert opinion

EBM RECOMMENDATIONS (from Up To Date, key below)

- provide MAR augmented by psychosocial tx first line rather than either alone (Grade 2C)
- consider oral naltrexone administered daily under supervision, then injectable naltrexone, for pts with mild OUD (Grade 2C)
- offer treatment with medications for pts with moderate-severe OUD rather than abstinence-based therapy (Grade 1B)

- consider buprenorphine first for pts with moderate-severe OUD (Grade 2B)
- pts treated with medications for OUD should have adjunctive addiction counselling and participation in mutual help groups (Grade 2C)
- if pts continue to use opioids despite bup tx, misuse or divert bup, consider methadone tx (Grade 2C) [Patients on methadone may be slightly more likely to remain in treatment but this benefit is counterbalanced by a higher risk of lethal OD]

Grade of Recommendation:

- 1A Strong recommendation, high quality evidence
- 1B Strong recommendation, moderate quality evidence
- 1C Strong recommendation, low quality evidence
- 2A Weak recommendation, high quality evidence
- 2B Weak recommendation, moderate quality evidence
- 2C Weak recommendation, low quality evidence

Questions/ideas to spur discussion

What barriers exist to providers recognizing OUD in their chronic pain patients?

What keeps us in denial?

What contributes to “clinical inertia”?

What makes us reluctant to change a chronic treatment plan, particularly in our elderly patients, even in the face of clear evidence of harm?

Some patients on chronic opioids may be resistant to decreasing dose due to psychological dependence, but not meet criteria for OUD. What about the patient working in a physically demanding job who believes his/her livelihood depends on current pain treatment?

Discuss a patient in whom you have diagnosed or suspected OUD. OR Your patient on chronic opioids has a urine drug screen positive for opioids other than prescribed and cocaine. How do you approach this? Remember to generalize and avoid PHI.

What can we do for our own resilience in primary care where addressing chronic pain, opioid prescribing and potential OUD is difficult, repetitive work?

In a small group, discuss how you would communicate to a current patient that you are concerned they have OUD. Discuss the complexity of sorting out OUD from chronic pain. What words would you choose specifically to talk to your patient?

OUD Myths for note cards

Addiction is a choice.

Addiction is a moral failing and a lack of willpower.

Detox is enough to quit.

The words we use don't influence our thoughts and behaviors.

Medications like methadone and buprenorphine just substitute one drug for another.

Rehab and treatment never work.

There is no proof that MAR is better than abstinence or faith based treatments.

Counselling is not necessary if the patient takes the medication (methadone/buprenorphine).

Naloxone just gives users a chance to use again.

There is no MAT/MAR coverage for uninsured patients.

Relapse means you are back where you started.

MAR is only needed short-term.

DSM-5 Criteria for Opioid Use Disorder

A problematic pattern of opioid use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:

- Opioids are often taken in larger amounts or over a longer period than was intended.
- There is a persistent desire or unsuccessful efforts to cut down or control opioid use.
- A great deal of time is spent in activities necessary to obtain the opioid, use the opioid, or recover from its effects.
- Craving, or a strong desire or urge to use opioids.
- Recurrent opioid use resulting in a failure to fulfill major role obligations at work, school, or home.
- Continued opioid use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of opioids.
- Important social, occupational, or recreational activities are given up or reduced because of opioid use.
- Recurrent opioid use in situations in which it is physically hazardous.
- Continued opioid use despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance.
- Tolerance,* need for markedly increased amounts of opioids to achieve intoxication/desired effect or markedly diminished effect with continued use of the same amount of an opioid.
- Withdrawal,* characteristic opioid withdrawal syndrome or opioids are taken to relieve or avoid withdrawal symptoms.

*Criteria are not applied to individuals taking opioids by prescription as most on chronic, higher doses have tolerance and withdrawal.

Mild=2-3

Moderate=4-5

Severe=>=6

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summary of buprenorphine training options-- which one is right for you?

FREE COURSES FOR ALL PRESCRIBERS: GOVERNMENT FUNDED

Offered for free by the Substance Abuse and Mental Health Services Administration (SAMHSA) through the Providers' Clinical Support System for Medication Assisted Treatment (PCSS-MAT). Funded by a Federal DHHS grant and administered by the American Academy of Addiction Psychiatry.

<https://pcssnow.org/education-training/mat-training/>

ONLINE COURSES FOR ALL PRESCRIBERS: \$199 TUITION

BupPractice was developed using a grant from the National Institute on Drug Abuse (NIDA). It does not accept pharmaceutical support or grants.

<https://www.buppractice.com/>

PHYSICIAN COURSES: \$199 TUITION

American Society of Addiction Medicine (ASAM)

<https://www.asam.org/education/live-online-cme/buprenorphine-course>

PA-NP: PHARMACEUTICAL INDUSTRY SPONSORED (FREE TO USER)

The American Society of Addiction Medicine (ASAM) partnered with the American Association of Nurse Practitioners (AANP) and the American Academy of PAs (AAPA) to offer online courses (while initial free offer was through 2017, it is still free as of 3/27/18) through an unrestricted educational grant from Indivior, the pharmaceutical manufacturer of branded Suboxone® Film strips.

<https://www.asam.org/education/live-online-cme/buprenorphine-course>

Many live courses have been hosted in Maine in 2017-18 by organizations such as Maine General, Maine Health, and the Maine Academy of Family Physicians. To inquire about future courses, check with local healthcare organizations, state professional societies or Caring For Me program staff at Maine Quality Counts.

Information summarized by the Maine Independent Clinical Information Service (MICIS). MICIS is a program of the Maine Medical Association, funded by Maine DHHS. MICIS does not accept pharmaceutical support. Updated 3/27/18.