



Chronic Pain Management, Identification of Opioid Use Disorder, and Referral to Treatment

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May 10, 2017

No Financial Disclosures

My background

- Family medicine
- Public health (preventive medicine)
- Addiction medicine
- Most clinical work has been in FQHC (underserved) settings

Goals

- Guidelines for Opioid Use in Chronic Pain
- Identifying Opioid Use Disorder
- Opioid Use Disorder Treatment
- Harm Reduction Tips



USE OF OPIOIDS FOR CHRONIC PAIN

Case 1

- Joe is a 53 year old man who works in construction and comes to your office and explains he's looking for a new PCP b/c his PCP retired
- Gives history of work-related injury 4 years ago
- Has been taking hydrocodone/acetaminophen 10/325 4 times a day for the past 4 years
- States he's been taking this dose for quite a while and it allows him to control his pain and continue to work

Case 1

- What questions would you ask him?
- What tools might you use to assess risk?
- Would you continue to prescribe opioids?
- Does he have opioid use disorder?

CDC Guidelines for Prescribing Opioids for Chronic Pain- US 2016

- Published March 2016
- Target audience:
 - Primary care providers treating adults (>18 yo) with chronic pain (> 3 months or past time of normal tissue healing) in outpatient settings
 - Outside of active cancer treatment, palliative care, and end-of-life care

GRADE Evidence Types/Recommendation Categories

- **Evidence Types:**
 - Type 1: Randomized controlled trials (RCTs); overwhelming observational studies
 - Type 2: RCTs (limitations); strong observational
 - Type 3: RCTs (notable limitations); observational
 - Type 4: RCTs (major limitations); observational (notable limitations) clinical experience
- **Recommendation categories:**
 - A: applies to all patients; most patients should receive recommended course of action
 - B: individual decision making required; providers help patients arrive at decision consistent with values/preferences and clinical situation

1- Opioids are not first-line for chronic pain

- Nonpharmacologic therapy
- Nonopioid pharmacologic therapy
- If opioids are used, they combine them with other therapies as appropriate

- ✓ Have referral sources for PT, know about area exercise programs, identify pain management groups or behavioral health counseling specific to chronic pain

2- Establish treatment goals

- Before starting opioids, establish treatment goals
 - Set realistic goals for pain and function
 - Consider how therapy will be discontinued if benefits do not outweigh risks
- Continue opioid therapy only if there is clinically meaningful improvement in pain and function that outweighs risks to patient safety

✓ Standardize a way to document treatment goals in the chart

3- Discuss risks and benefits

- Before starting and periodically during, discuss risks and benefits of opioid therapy
 - Common risks: constipation, sedation, hormonal changes (menstrual irregularity, decreased testosterone), risk for “addiction”
 - Serious risks: increased risk of overdose/death on higher doses, increased risk of overdose/death when mixed with other sedating medications or alcohol
- Discuss patient and clinician responsibilities for managing therapy
 - Periodic reassessment, PDMP and urine checks
 - Risks to family members and individuals in the community
- ✓ Have a standard patient consent/patient agreement that you use for every patient on chronic opioids

4- Formulation

- When starting opioid therapy for chronic pain, prescribe immediate-release opioids instead of extended-release/long-acting (ER/LA) opioids.
 - In general, avoid the use of immediate-release opioids combined with ER/LA opioids
 - Methadone should not be the first choice for an ER/LA opioid
 - Only consider prescribing transdermal fentanyl if familiar with the dosing and absorption properties and prepared to educate patients about its use

5- Start Low and Go Slow

- When opioids are started, prescribe the lowest effective dosage
- Use particular caution when increasing dosage to ≥ 50 morphine milligram equivalents (MME)/day
 - Reassess pain, function, and treatment
 - Increase frequency of follow-up
 - Consider offering naloxone
- Avoid increasing dosage to ≥ 90 MME/day or carefully justify decision to do so
 - Discuss other therapies; consider pain specialist
 - Consider prescribing naloxone
- ✓ Have an MME calculator available (and use it)
- ✓ Have overdose education handouts and know how to prescribe naloxone

What is an opioid overdose?



Opioids can cause bad reactions that make your breathing slow or even stop. This can happen if your body can't handle the opioids that you take that day.

TO AVOID AN ACCIDENTAL OPIOID OVERDOSE:

- Try not to mix your opioids with alcohol, benzodiazepines (Xanax, Ativan, Klonopin, Valium), or medicines that make you sleepy.
- Be extra careful if you miss or change doses, feel ill, or start new medications.

Now that you have naloxone...

Tell someone where it is and how to use it.

Common opioids include:

GENERIC	BRAND NAME
Hydrocodone	Vicodin, Lorcet, Lortab, Norco, Zohydro
Oxycodone	Percocet, OxyContin, Roxicodone, Percodan
Morphine	MSContin, Kadian, Embeda, Avinza
Codeine	Tylenol with Codeine, TyCo, Tylenol #3
Fentanyl	Duragesic, Actiq
Hydromorphone	Dilaudid
Oxymorphone	Opana
Meperidine	Demerol
Methadone	Dolophine, Methadose
Buprenorphine	Suboxone, Subute, Zubsoolv, Bunavail, Butrans

* Heroin is also an opioid.

For patient education, videos and additional materials, please visit www.prescribetoprevent.org



SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH

Prescribetoprevent.org

Opioid safety and how to use naloxone



In case of overdose:

1 Check responsiveness

Look for any of the following:

- No response even if you shake them or say their name
- Breathing slows or stops
- Lips and fingernails turn blue or gray
- Skin gets pale or clammy

2 Call 911 and give naloxone

If no reaction in 3 minutes, give second naloxone dose

3 Do rescue breathing and/or chest compressions

Follow 911 dispatcher instructions

>> STAY WITH PERSON UNTIL HELP ARRIVES.

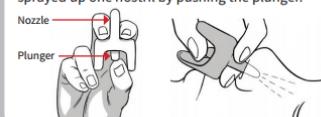
Naloxone Prescribing

How to give naloxone:

There are 4 common naloxone products. Follow the instructions for the type you have.

Nasal spray

This nasal spray needs no assembly and can be sprayed up one nostril by pushing the plunger.



Nasal spray with assembly

This requires assembly. Follow the instructions below.

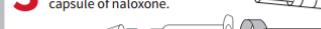
1 Take off yellow caps.



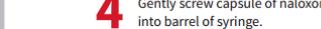
2 Screw on white cone.



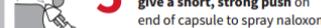
3 Take purple cap off capsule of naloxone.



4 Gently screw capsule of naloxone into barrel of syringe.



5 Insert white cone into nostril; give a short, strong push on end of capsule to spray naloxone into nose: ONE HALF OF THE CAPSULE INTO EACH NOSTRIL.

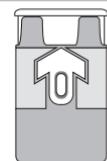


6 Push to spray.

If no reaction in 3 minutes, give second dose.

Auto-injector

The naloxone auto-injector needs no assembly and can be injected into the outer thigh, even through clothing. It contains a speaker that provides step-by-step instructions.



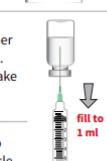
Injectable naloxone

This requires assembly. Follow the instructions below.

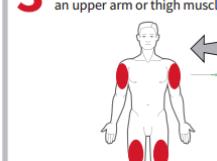
1 Remove cap from naloxone vial and uncover the needle.



2 Insert needle through rubber plug with vial upside down. Pull back on plunger and take up 1 ml.



3 Inject 1 ml of naloxone into an upper arm or thigh muscle.



If no reaction in 3 minutes, give second dose.

6- Acute pain

- When used for acute pain, prescribe the lowest effective dose of immediate-release opioids
- Prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids.
- 3 days or less will often be sufficient; more than 7 days will rarely be needed.

7- Follow up

- Evaluate benefits and harms with patients within 1 to 4 weeks of starting or after dose escalation
- Evaluate benefits and harms at least every 3 months
- If benefits do not outweigh harms, optimize other therapies; work to taper/discontinue opioids.
 - A decrease of 10% MME per week is a reasonable starting point to avoid risk of withdrawal symptoms
 - Access appropriate expertise for tapering during pregnancy
 - Optimize nonopioid pain management and psychosocial support
- ✓ Identify a quantitative tool that you can use to evaluate pain and function regularly (PEG is one example)

PEG

- Pain on average in past week (past week pain in average)
- Enjoyment in Life (past week how has pain interfered with your enjoyment in life)
- General Activity (in past week how much has pain interfered with your general activity)

8- Evaluate risk factors

- Before starting and periodically during continuation of opioid therapy, evaluate risk factors
 - Moderate or severe sleep-disordered breathing
 - Pregnancy
 - Renal or hepatic insufficiency
 - Aged ≥ 65 years
 - Ensure depression is adequately treated
- Incorporate strategies to mitigate risk:
 - Offer naloxone when patient:
 - Has a history of overdose
 - Has a history of substance use disorder
 - Is taking a central nervous system depressant with opioids
 - Is on higher dosages of opioids (≥ 50 MME/day)
- ✓ Have overdose education handouts and know how to prescribe naloxone

9- Prescription Drug Monitoring Program

- Use the PMP when starting therapy and periodically during
 - Look for:
 - Multiple opioid prescriptions/multiple pharmacies
 - Look at whether other controlled substances are being prescribed
 - If you suspect diversion, consider urine drug testing to assist in determining whether opioids can be discontinued without causing withdrawal.
 - Do not dismiss patients from care—use the opportunity to provide potentially lifesaving information and interventions

- ✓ Use the PMP
- ✓ Identify a system for documenting PMP check in the chart

10- Urine Drug Testing

- Use urine drug testing before starting and at least annually thereafter
 - Assess for presence of prescribed medications
 - Assess for other controlled prescription drugs and illicit drugs
- Be familiar with panel you are ordering and how to interpret it
- Don't test for substances that wouldn't affect patient management
- Before ordering urine drug testing
 - Explain testing is to improve safety
 - Explain expected results
 - Ask patients whether there might be unexpected results

Urine Drug Testing- Unexpected Results

- Discuss unexpected results with local lab and patients
- Verify unexpected results using specific test
- Do not dismiss patients from care based on a urine drug test result

- ✓ Identify a test that will include the substances you routinely prescribe and any that will impact safety of continued prescribing

11- Avoid Opioid/Benzodiazepine Combination

- Avoid prescribing opioids and benzodiazepines concurrently whenever possible
 - Taper benzodiazepines gradually
 - Offer evidence-based psychotherapies for anxiety
 - Cognitive behavioral therapy
 - Specific anti-depressants approved for anxiety
 - Other non-benzodiazepine medications approved for anxiety
 - Coordinate care with mental health professionals
- ✓ Have referral sources for behavioral health therapy

12- Opioid Use Disorder Treatment

- Offer or arrange evidence-based treatment for patients with opioid use disorder
 - Medication assisted treatment has best outcome
- ✓ Identify treatment options/referral sources for opioid use disorder- know what types of treatment referral sources offer

Considerations for your own practice

- ✓ Referral sources for PT, area exercise programs, pain management groups or behavioral health counseling specific to chronic pain
- ✓ Standardize a way to document treatment goals in the chart
- ✓ Have a standard patient consent/patient agreement that you use for every patient on chronic opioids
- ✓ Have an MME calculator available (and use it)
- ✓ Have overdose education handouts and know how to prescribe naloxone
- ✓ Identify a quantitative tool that you can use to evaluate pain and function regularly (PEG is one example)
- ✓ Use the PMP & document PMP results in chart
- ✓ Identify the right urine drug screen and use it
- ✓ Identify treatment options/referral sources for opioid use disorder are identified

Case 1

- Joe is a 53 year old man who works in construction and comes to your office and explains he's looking for a new PCP b/c his PCP retired
- Gives history of work-related injury 4 years ago
- Has been taking hydrocodone/acetaminophen 10/325 3 times a day for the past 4 years
- States he's been taking this dose for quite a while and it allows him to control his pain and continue to work

Case 1

- What questions would you have for him?
 - Escalation of opioid use?
 - What treatments has he tried other than opioids?
 - Ever take more than prescribed?
 - History of alcohol/drug use?
 - Family history of alcohol/drug use?
 - History of depression or other mental illness?
 - Other medical comorbidities?
 - Current level of functioning?
 - Previous PT, specialist visits, imaging, pain management, etc.

Case 1

- What tools might you use to assess risk?
 - Labs to measure renal and liver function
 - Urine drug screen
 - PMP review
 - Request and review records from previous PCP and any other medical providers
 - Depression screening



IDENTIFYING OPIOID USE DISORDER (OUD)

What is Addiction?

“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.”

OUD is a Chronic Condition

- Genetic component
- Environmental component
- Behavioral component

Screening for SUD in Clinical Setting

- SBIRT- Screening, Brief Intervention and Referral to Treatment
 - Initial research was done in ER settings focusing on alcohol use
 - Encouraged in primary care settings for alcohol and drug use
- Validated Screening Tool for drug use:
 - Single question: “How many times in the past year have you used an illicit drug or prescription drug for non-medical purposes?”
 - Score of ≥ 1 full screener such as DAST (Drug Abuse Screening Test)

DAST

These questions refer to the past 12 months.	No	Yes
1. Have you used drugs other than those required for medical reasons?	0	1
2. Do you abuse more than one drug at a time?	0	1
3. Are you always able to stop using drugs when you want to? (If never use drugs, answer "Yes.")	0	1
4. Have you had "blackouts" or "flashbacks" as a result of drug use?	0	1
5. Do you ever feel bad or guilty about your drug use? If never use drugs, choose "No."	0	1
6. Does your spouse (or parents) ever complain about your involvement with drugs?	0	1
7. Have you neglected your family because of your use of drugs?	0	1
8. Have you engaged in illegal activities in order to obtain drugs?	0	1
9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?	0	1
10. Have you had medical problems as a result of your drug use (e.g., memory loss, hepatitis, convulsions, bleeding, etc.)?	0	1

Score of Screening Determines Level of Intervention

- No intervention
- Brief intervention
- Extended brief intervention
- Referral to treatment

Medical Diagnosis: Opioid Use Disorder

DSM IV

- Used Terms “Dependence” (7 symptoms) and “Abuse” (4 symptoms) as separate diagnoses
- Included legal problems as a diagnostic criterion for “abuse”

DSM 5

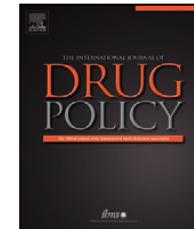
- New term of “Use disorder” that ranges from mild to severe based on number of symptoms
- Removed legal problems and added “cravings” as diagnostic criterion

Diagnostic Criteria for OUD (DSM 5)

1. Larger amounts and for longer than intended
2. Wanting to cut down or quit but not being able to do it
3. Spending a lot of time obtaining the opioid
4. Craving or a strong desire to use opioids
5. Repeatedly unable to carry out major obligations at work, school, or home due to opioid use
6. Continued use despite persistent or recurring social or interpersonal problems
7. Stopping or reducing important social, occupational, or recreational activities due to opioid use
8. Recurrent use of opioids in physically hazardous situations
9. Consistent use despite acknowledgment of persistent or recurrent physical or psychological difficulties
10. *Tolerance as defined by either a need for markedly increased amounts to achieve intoxication or desired effect or markedly diminished effect with continued use of the same amount.
11. *Withdrawal manifesting as either characteristic syndrome or the substance is used to avoid withdrawal

Does language matter?

- Stigma associated with term “abuse”
- Importance of identifying person with a “substance use disorder” as opposed to “an addict” or “substance abuser”



Research paper

Does it matter how we refer to individuals with substance-related conditions? A randomized study of two commonly used terms[☆]

John F. Kelly*, Cassandra M. Westerhoff

Center for Addiction Medicine, Department of Psychiatry, Massachusetts General Hospital, 60 Staniford Street, Boston, MA 02114, United States

- Mental Health Professionals
- Same clinical scenario – one with “substance abuser” and other with “person with substance use disorder”
- Those in the “substance abuser” condition agreed more with the notion that the character was personally culpable and that punitive measures should be taken

Case 1

- Joe is a 53 year old man who works in construction and comes to your office and explains he's looking for a new PCP b/c his PCP retired
- Gives history of work-related injury 4 years ago
- Has been taking hydrocodone/acetaminophen 10/325 3 times a day for the past 4 years
- States he's been taking this dose for quite a while and it allows him to control his pain and continue to work

Case 1- Continued

- He denies any work or family-related problems due to his opioid use
- He denies needing more than prescribed
- Urine drug screen negative for all substances except hydrocodone
- PMP shows that he gets 120 pills of hydrocodone/acetaminophen 10/325 each month for the past year; no other CS

Case 1- Continued

Does he have opioid use disorder?

1. Larger amounts and for longer than intended
2. Wanting to cut down or quit but not being able to do it
3. Spending a lot of time obtaining the opioid
4. Craving or a strong desire to use opioids
5. Repeatedly unable to carry out major obligations at work, school, or home due to opioid use
6. Continued use despite persistent or recurring social or interpersonal problems
7. Stopping or reducing important social, occupational, or recreational activities due to opioid use
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OPIOID USE DISORDER TREATMENT

Case 2

- George is a 40 year old man who presents to the emergency room saying he is in pain- describes pain in his low back
- He is sweating, eyes are watering, has piloerection, describes feeling nauseated and having abdominal cramps as well as muscle cramps
- He is visibly uncomfortable and his pupils are dilated

Case 2

- On physical exam, you notice he has puncture wounds on his antecubital fossa consistent with injection drug use
- On further questioning, he reports that he had chronic back pain and he started using prescription opioids which stopped working so now he is using heroin to control his pain.
- What questions would you ask?
- How would you help him today?

Substance Use Disorder Treatment

From Acute Care Model

- Enters Treatment
- Completes Assessment
- Receives Treatment
- Discharged

To Chronic Care Model

- Prevention
- Early Intervention
- Treatment
- Recovery Support Services

What does SUD treatment look like?

- Different “levels” of care
 - Level of Care should be based on severity of disease and psychosocial situation
 - Can vary from 2 hours per week to intensive in-patient programs
- May or may not include medications
 - Not all substance use disorders have medications available to be part of treatment

ASAM Levels of Care

Level of Care	Title	Description
0.5	Early intervention	At-risk individuals who do not meet diagnostic criteria for substance use disorder
1	Outpatient Services	< 9 hours of service/week for recovery or motivational enhancement therapies/strategies
2.1	Intensive outpatient services	\geq 9 hrs/week to treat multi-dimensional instability
2.5	Partial Hospitalization services	\geq 20 hrs/week for multi-dimensional instability not requiring 24-hour care
3.1	Clinically managed low-intensity residential services	24 hr structure with trained personnel available (less intense group treatment)
3.5	Clinically managed medium-intensity residential	Same as above with more intense group treatment
3.7	Medically monitored high-intensity inpatient services	24 hr nursing care with physician availability for significant problems
4.0	Medically managed intensive inpatient services	24-hr nursing care and daily physician care for severe, unstable problems

American Society for Addiction Medicine (ASAM) Patient Treatment Criteria for the Treatment of Substance Use Disorders

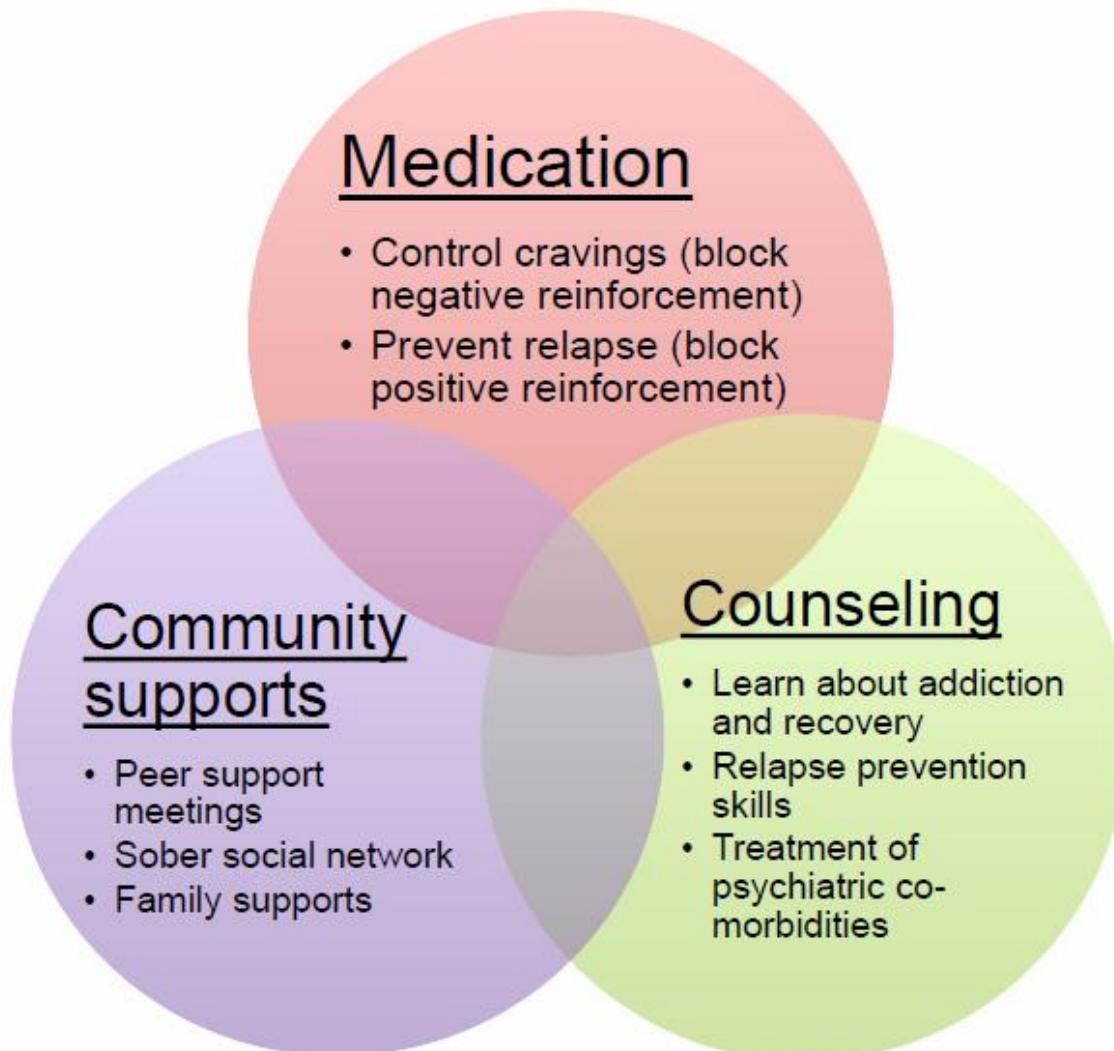


ASAM Levels of Care

- Individuals who go to a lower level of care than what is recommended have worse outcomes
- Individuals who go to a higher level of care than what is recommended do not have better outcomes

OUD Treatment

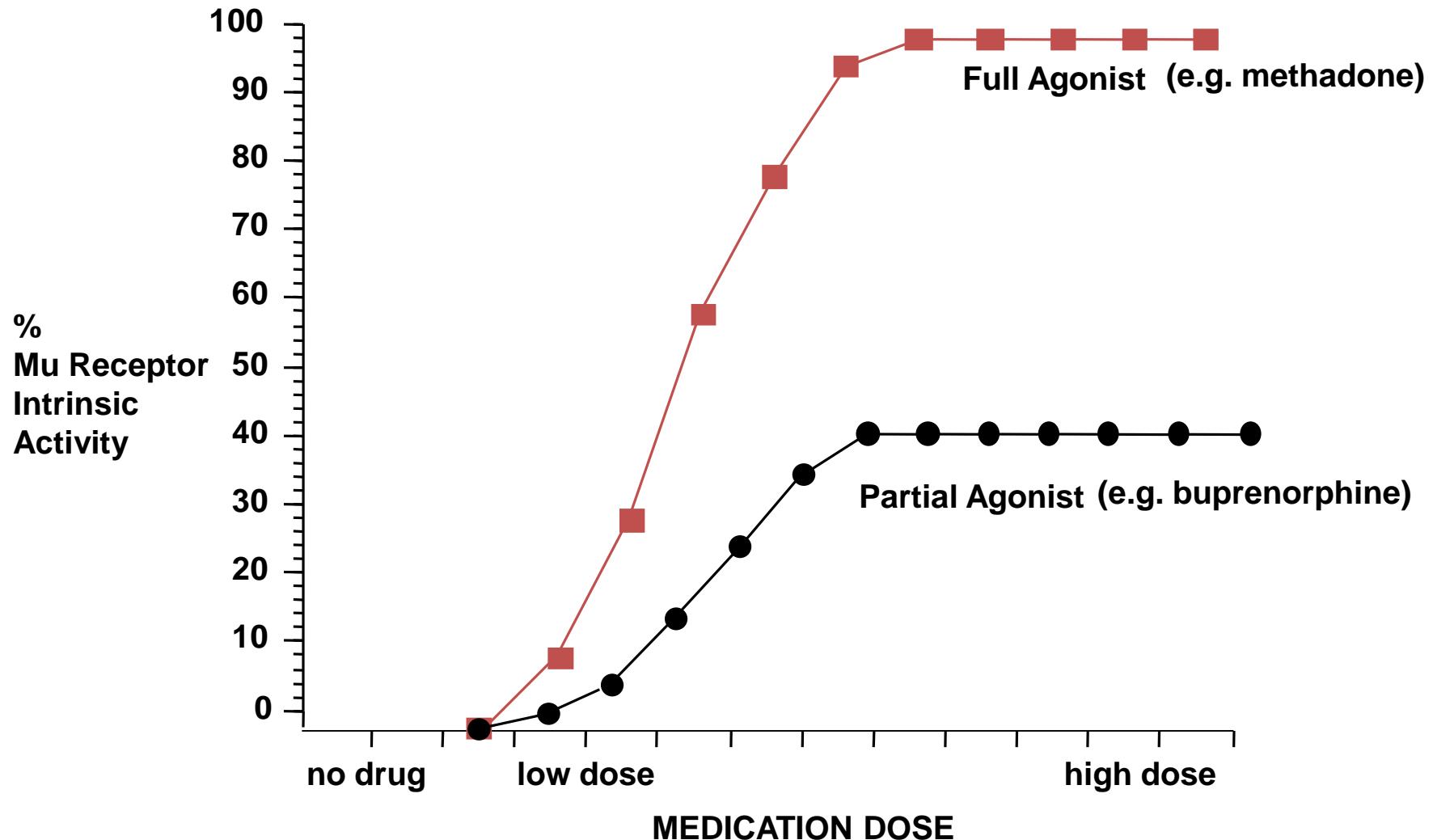
- Behavioral support (could be through formal treatment program, individual counseling)
- Medication Assisted Treatment (counseling + medication)
 - Methadone
 - Buprenorphine (Suboxone®, Bunavail™, Zubsole®, Subutex, and newer Probuphine® implant)
 - Injectable Extended Release (ER) Naltrexone (Vivitrol®)
- Detox is NOT treatment and actually increases risk of overdose without linkage to next level of care



Evidence Based Practice: MAT (Medication Assisted Treatment)

- **Methadone**
 - Full opioid agonist
 - Available since 1970s
 - In US only available in certified MMT programs with strict regulations around administration
 - Strong evidence (in combination with behavioral therapy)
- **Buprenorphine** (Suboxone®, Bunavail™, Zubsolve®, Subutex, and newer Probuphine® implant)
 - Partial opioid agonist (has ceiling effect- safer for overdose risk)
 - FDA approved for OUD since 2002 and able to be prescribed in outpatient settings with DATA waiver (Primary care, etc)
 - Now NPs and PAs are allowed to prescribe
 - Strong evidence (in combination with behavioral therapy)
- **Injectable Extended Release (ER) Naltrexone** (Vivitrol®)
 - Opioid antagonist
 - FDA approved in 2010
 - Evidence not as robust for OUD (as compared to methadone or buprenorphine)

Activity Levels



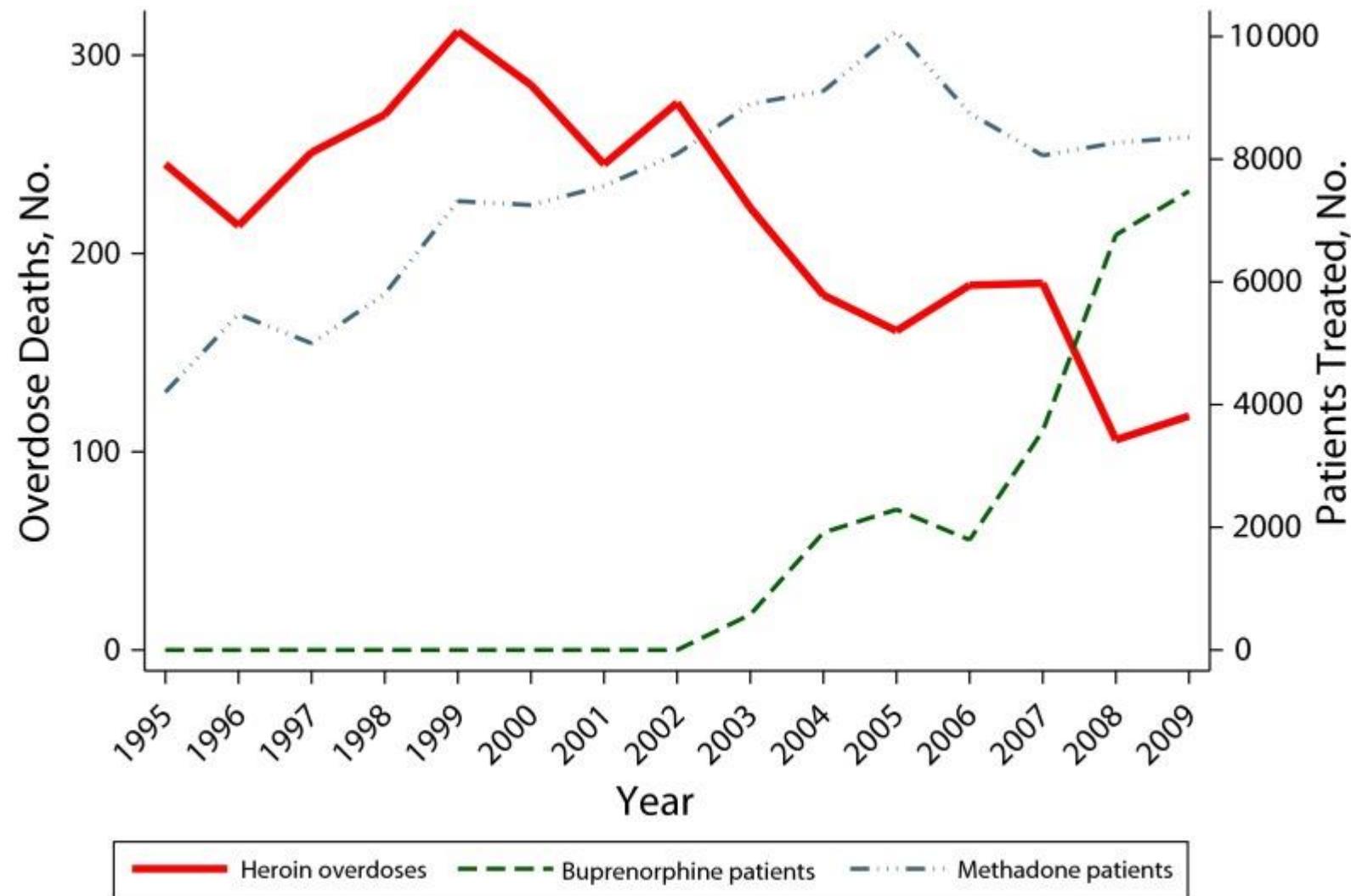
Indications for Medications

- All patients with opioid use disorder should be offered medication as a component of treatment
 - Only 10% of patients with OUD in addiction treatment programs were actually receiving medication

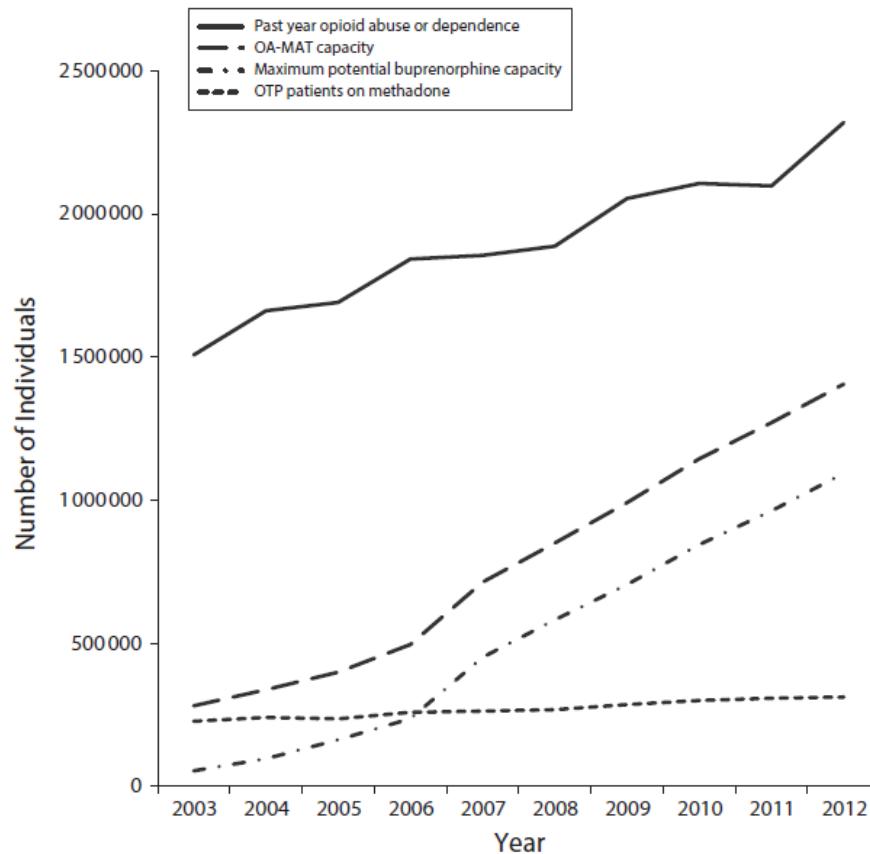
Benefits Of Agonist (Methadone and Buprenorphine) Treatment

- Reduces risk of overdose
- Reduces risk of HIV infection
- Reduces risk of infection with hepatitis C and B
- Increases rates of employment
- Decreases crime
- Increases length of life

Opioid Agonist Treatments and Heroin Overdose Deaths in Baltimore, MD 1995-2009



Access to OUD MAT in US



Note. OA-MAT = opioid agonist medication-assisted treatment; OTP = opioid treatment program.

FIGURE 1—Trends in past-year opioid abuse or dependence and opioid agonist medication-assisted treatment capacity: United States, 2003–2012.

How long is agonist treatment needed?

- Individualized
- Less than 90 days in any treatment setting is of limited to no effectiveness
- Studies demonstrate that MAT (medication plus treatment) results in superior outcomes as compared to behavioral intervention without medication
 - Most commonly studied outcomes include retention in treatment and opioid abstinence

Treatment Selection: Agonist or Antagonist?

- No head-to head trials comparing agonist therapies (methadone or buprenorphine) with antagonist therapy (injectable ER naltrexone)
 - *Oral naltrexone is available and meta-analysis has not shown any benefit for treatment of opioid use disorder over placebo*
- Available evidence suggest that patients have better outcomes with agonist therapies
- Most available antagonist studies are among justice-involved populations

Treatment Selection: Agonist or Antagonist?

- Antagonist therapy may be considered when:
 - Patient preference
 - Patient is highly motivated not to use opioids
 - Patient with mild OUD
 - Patients with occupations that do not allow agonist treatment (individuals operating heavy machinery, transportation drivers, in some cases physicians/healthcare workers)

Medical Provider Next Steps:

- ✓ Identify community partners that can serve as referral network- know what services they offer
- ✓ Screen for alcohol and drug use
- ✓ Consider prescribing buprenorphine or extended release naltrexone in your office setting
- ✓ Prescribe naloxone for those who are at risk for overdose (or who know someone who is)

Case 2- Continued

- What type of treatment would you recommend for George?
 - Yale study of ED-initiated buprenorphine found that starting buprenorphine from the ER:
 - Patients were more likely to engage in treatment in outpatient setting
 - Less likely to use illicit opioids
 - Less likely to use inpatient addiction-related services

Case 2- Continued

- What information might you offer if George is not interested in treatment?



HARM REDUCTION TIPS

Harm Reduction Tips

- Try not to use alone (or have someone check on you)
- Leave the door unlocked or slightly open
- Let people know to check on you
- Develop an overdose response plan with friends/others who use drugs
- Try not to mix drugs (benzos, alcohol and other “downers” significantly increase risk of overdose and death)

Harm Reduction Tips

- Lots of fentanyl- try to do a “test shot”
- Get naloxone!
- (Also important to recommend sterile injecting techniques to reduce risk of site infection and/or Hep C and HIV)

Overdose Reversal- Naloxone

- Naloxone is a short acting medication that can reverse an opioid overdose
- Three different formulations
 - Intramuscular
 - Intranasal
 - Auto-injector
- IL Heroin Crisis Act of 2015:
 - Required that Medicaid (and all MCOs) cover naloxone
 - Allows pharmacists who have completed training to dispense it without an Rx

In case of overdose:

1 Check responsiveness

Look for any of the following:

- No response even if you shake them or say their name
- Breathing slows or stops
- Lips and fingernails turn blue or gray
- Skin gets pale or clammy

2 Call 911 and give naloxone

If no reaction in 3 minutes, give second naloxone dose

3 Do rescue breathing and/or chest compressions

Follow 911 dispatcher instructions

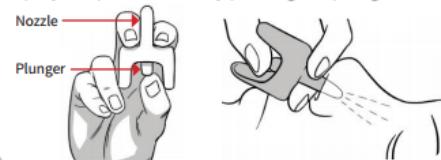
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There are 4 common naloxone products. Follow the instructions for the type you have.

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This nasal spray needs no assembly and can be sprayed up one nostril by pushing the plunger.



Nasal spray with assembly

This requires assembly. Follow the instructions below.

- 1 Take off yellow caps.
- 2 Screw on white cone.
- 3 Take purple cap off capsule of naloxone.
- 4 Gently screw capsule of naloxone into barrel of syringe.
- 5 Insert white cone into nostril; give a short, strong push on end of capsule to spray naloxone into nose: **ONE HALF OF THE CAPSULE INTO EACH NOSTRIL.**
Push to spray.
- 6 If no reaction in 3 minutes, give second dose.

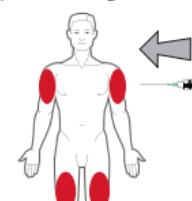
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Injectable naloxone

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- 1 Remove cap from naloxone vial and uncover the needle.
- 2 Insert needle through rubber plug with vial upside down. Pull back on plunger and take up 1 ml.
- 3 Inject 1 ml of naloxone into an upper arm or thigh muscle.

- 4 If no reaction in 3 minutes, give second dose.

Evidence Behind Naloxone

- No increase in use; increase in drug treatment
 - Seal et al. J Urban Health 2005;82:303-11
 - Galea et al. Addict Behav 2006;31:907-912
 - Wagner et al. Int J Drug Policy 2010; 21: 186-93
 - Doe-Simkins et al. BMC Public Health 2014; 14:297
- Cost effective
 - Coffin & Sullivan Ann Internal Med 2013; 158: 1-9
- Reduction in overdose deaths
 - Walley et al. BMJ 2013 346:f174
- Should center around PWUD
 - Rowe et al. Addiction 2015; 1360-0443

Resources

- <http://www.integration.samhsa.gov/clinical-practice/sbirt/training-other-resources>
- www.ASAM.org
- www.pcss-o.org - (free webinars on both opioid pain management and treatment of opioid use disorder)
- www.csam-asam.org – free webinars
- www.prescribetoprevent.org (naloxone information)
- www.harmreduction.org

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