

# Treating Addiction with Medications in MyHealthLA

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No disclosures

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## Introduction: Case Presentation

- 10 Mr. Brown is a **34 year-old** male with chronic Hep C and opioid use disorder who injects 1g of heroin daily. He arrives at the Hep C clinic to begin a 12 week trial of sofosbuvir-velpatasvir. He also drinks up to a fifth of vodka most days of the week, and he denies significant alcohol withdrawal on the days he doesn't drink. He smokes 2 packs of tobacco cigarettes a day and smokes cannabis daily. He denies any other substance use.



Doc Brown, Back to the Future, Universal Pictures

- 10 He's not ready to stop using heroin, drinking alcohol, smoking tobacco cigarettes or smoking cannabis.

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## Introduction: Case Presentation

Which of the following medications treats the health condition associated with the largest risk of morbidity and mortality in this patient?

- A. Nicotine Replacement Therapy (NRT)
- B. Buprenorphine/Naloxone
- C. Sofosbuvir-velpatasvir
- D. Oral Naltrexone
- E. Gabapentin



Doc Brown, Back to the Future, Universal Pictures

*Assume no other medication interactions, no allergies, no medical problems other than chronic Hep C, and pt is otherwise naïve to medications for addiction*

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# Addiction During COVID-19

**COVID-19 pandemic increases need for addiction treatment:**

**COVID-19**


- Stress, anxiety and isolation
- “Stay-at-Home” orders and border restrictions
- Unemployment, loss of economic opportunity, and poverty

▶


**Negative Outcomes**

- Increase symptoms of addiction and mental illness
- Reduce drug availability
- Increase symptoms of addiction and mental illness

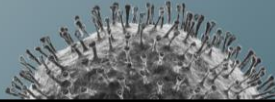
**It is critical that patients have access to treatment during this pandemic.**



NATIONAL ACADEMY of MEDICINE



ASAM American Society of Addiction Medicine



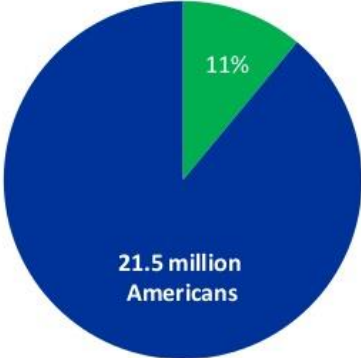
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## The substance use disorder treatment gap

Substance use leads to more death and disability than any other preventable condition


In 2014,

- 21.5 million people w/ SUD
- 2.3 million received treatment



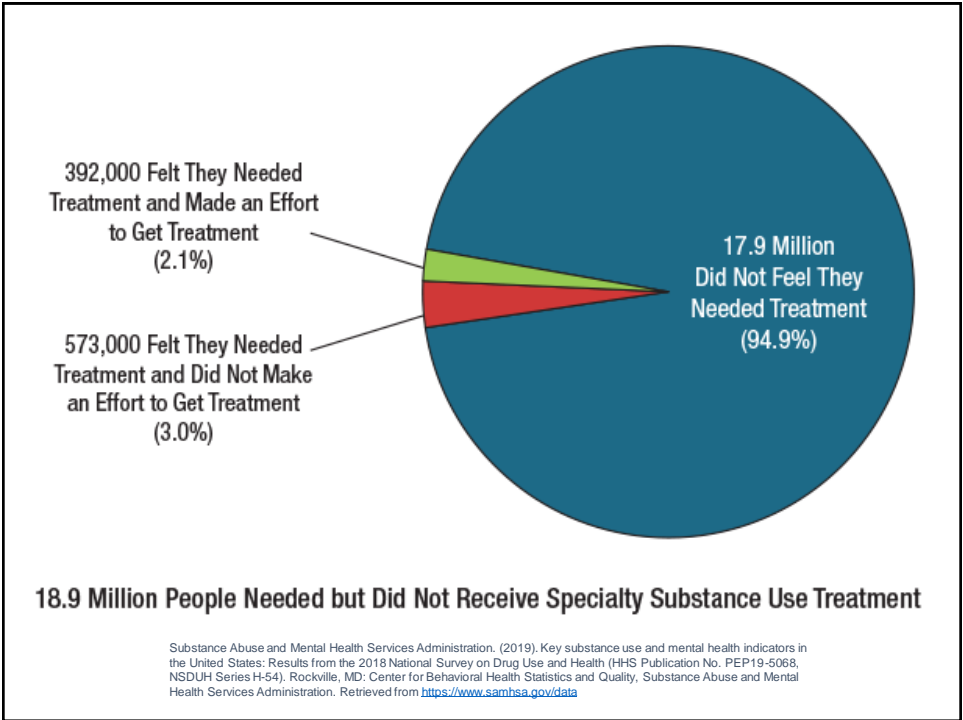
Category	Value
Total Americans with SUD	21.5 million
Received treatment	11%

Robert Wood Johnson Foundation, 2010  
Mokdad et al., JAMA 2004  
National Survey on Drug Use and Health, 2014

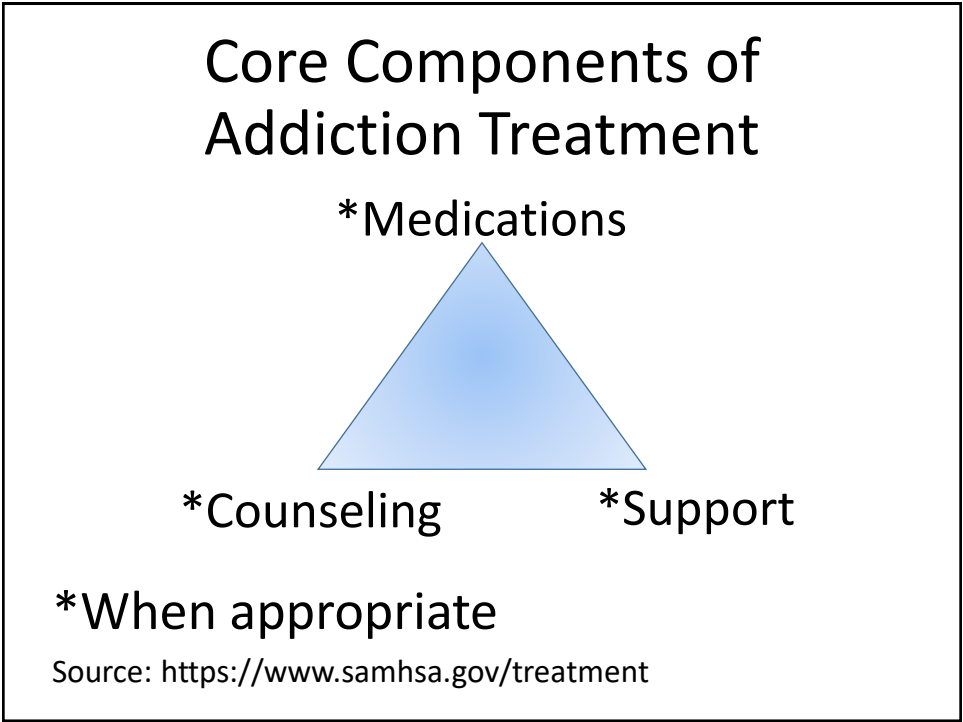


#RxSummit  
NATIONAL  
RX DRUG ABUSE & HEROIN  
SUMMIT

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## Medications for Addiction Treatment (MAT)



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- Opioids
  - Methadone
  - Buprenorphine
  - Naltrexone
  - \*\*Naloxone
- Alcohol
  - Disulfiram
  - Naltrexone
  - Acamprosate
- Tobacco
  - Nicotine
  - Bupropion
  - Varenicline
- Others
  - No FDA-approved medications (yet)

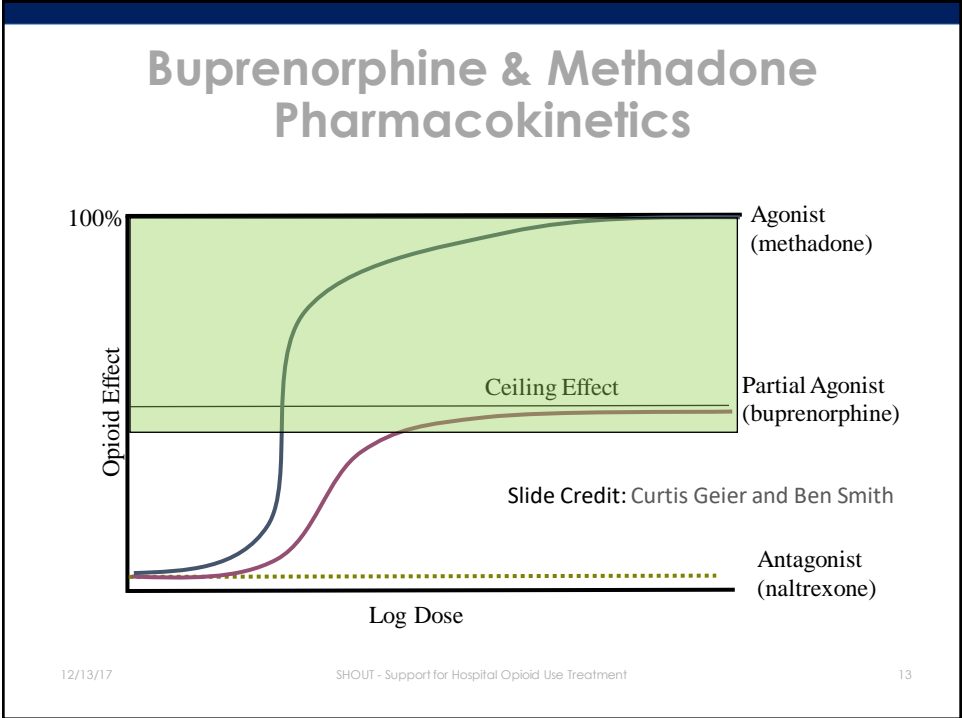
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- Opioids
  - Methadone → METHADONE
  - Buprenorphine → SUBOXONE
  - Naltrexone → VIVITROL (Or ReVia)
  - \*\*Naloxone → NARCAN
- Alcohol
  - Disulfiram → ANTABUSE
  - Naltrexone → VIVITROL (Or ReVia)
  - Acamprosate → CAMPRAL

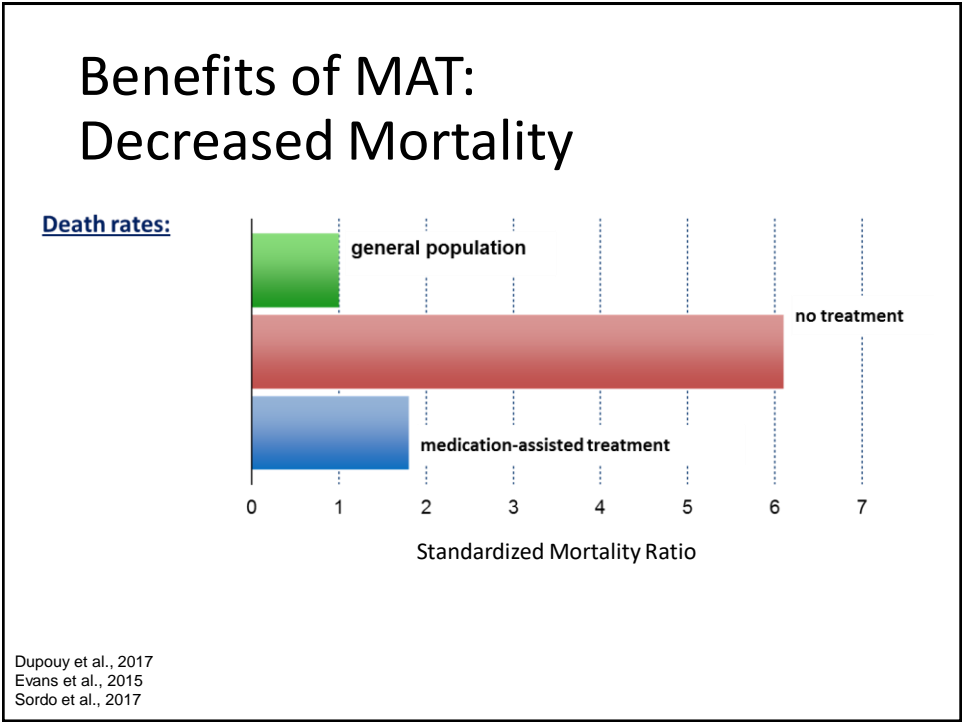
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- Tobacco
  - Nicotine → NICOTROL, NICOTERM, NICORETTE, etc
  - Bupropion → (ZYBAN or Wellbutrin)
  - Varenicline → CHANTIX

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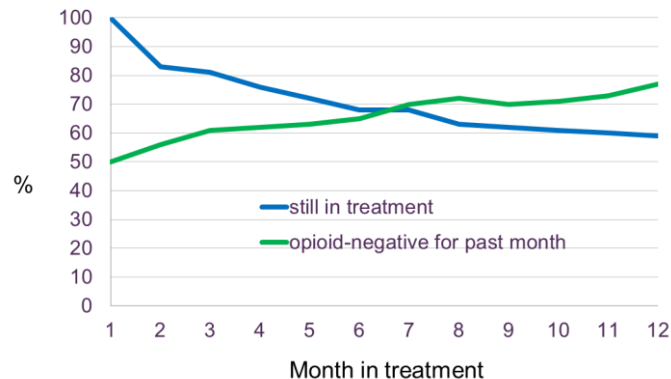
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## Treatment Retention and Decreased Illicit Opioid Use on MAT

- Buprenorphine promotes retention, and those who remain in treatment become more likely over time to abstain from other opioids



Kakko et al., 2003  
Soeffing et al., 2009

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## Medication FIRST Model

- People with OUD receive pharmacotherapy treatment as quickly as possible, prior to lengthy assessments or treatments planning sessions;
- Maintenance pharmacotherapy is delivered without arbitrary tapering or time limits;
- Individualized psychosocial services are continually offered but not required as a condition of pharmacotherapy;
- Pharmacotherapy is discontinued only if it is worsening the person's condition.

<http://www.nomodeaths.org/medication-first-implementation>

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## Medication FIRST Model





- Medication *first **does not mean** Medication only*
- Medication is contingent upon the pt’s benefit, not based upon a timeframe, patient’s participation in counseling, an unexpectedly positive test result, etc

<http://www.nomodeaths.org/medication-first-implementation>

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## How to Start Buprenorphine (Suboxone) for someone who’s using opioids

You need at least 3 of the following feelings before taking your first buprenorphine dose\*:




Yawning	Sweating or chills
Enlarged pupils	Restless/Can’t sit still
Joint and bone aches	Anxiety, irritable, fast heart beat
Shaking or twitches	Bumpy skin (Gooseflesh)
Watery eyes/Runny Nose	Lost Appetite, Stomach cramps
Nausea, vomiting or Diarrhea	


- Dosing: Take ½ to 1 strip or tab every 1 hour until withdrawal / cravings are gone
- Can go up to a recommended max dose of 24mg, but not every patient needs this dose



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2. Put the tablet / film under your tongue and let it dissolve [don't swallow, don't chew]



3. After 1 hour, how are you feeling?


- o IF GOOD: nothing more to do
- o IF still having the withdrawal symptoms or feeling worse: put another tablet under your tongue





**Day 2:**

- If you feel good the next day, take the same number of total pills you took the day before
- during the day: if you feel withdrawal symptoms or feel cravings you can take another tablet under your tongue

**Day 3:**

- If you feel good, you can take the same number of pills you took the day before or split it however you want throughout the day.
- If you are taking LESS than 4 tablets AND you have cravings later in the day, you can take yourself the 4<sup>th</sup> tablet whatever time of the day you want...



			
8mgs.	4mgs.	2mgs	

## How to Start Buprenorphine (Suboxone) for someone who's been off opioids


1. Put 1 or ½ tablet or film under the tongue

2. After about 2 hours: CHECK how are you feeling?

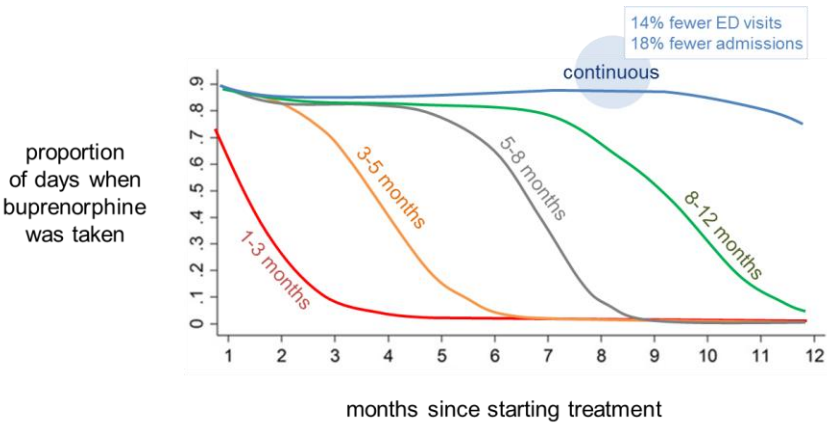
— IF GOOD (no headaches, no nausea, not “out of it”): place another tablet under your tongue

— CONTINUE to take more every two hours if you notice cravings

— DON’T ADD MORE SUBOXONE if you have a problem with side effects (like headaches, nausea, and feeling “out of it”)



# Optimal Duration of MAT



Lo-Ciganic et al., 2016

# Buprenorphine Formulations for Opioid Use Disorder

Content	Route	Products	Available Doses	Equivalent Dose to 8mg Buprenorphine
With Naloxone	Sublingual	Film (suboxone)	2mg Bup/0.5mg Nx 4mg Bup/1mg Nx 8mg Bup/2mg Nx 12mg Bup/3mg Nx	8mg
		Tablet - Generic	2mg Bup/0.5mg Nx 8mg Bup/2mg Nx	
	Sublingual	Tablet - (Zubsolv*)	1.4mg Bup / 0.36mg Nx 2.9mg Bup / 0.7mg Nx 5.7mg Bup / 1.4mg Nx 8.6mg Bup / 2.1mg Nx 11.4mg Bup / 2.6mg Nx	5.7 mg
Mono-product	Buccal	Film (Bunavail*)	2.1mg Bup / 0.3mg Nx 4.2mg Bup / 0.7mg Nx 6.3mg Bup / 1mg Nx	4.2mg
	Sublingual	Tablet - Generic	2mg Bup 8mg Bup	8mg
	<del>Implant</del>	<del>buprenorphine</del>	<del>74.2mg</del> (Four implants for six months in one arm)	<del>74.2 mg</del>
	Injection	sublocade	100mg, 300mg (Once-monthly injection)	300 mg: First dose 100mg: Steady state dose

### DATA 2000: Qualified Physicians

To qualify for a DATA 2000 waiver a physician must:

- Hold a current State medical license
- Hold a valid DEA registration
- And must meet one of the following conditions:
  - Board certification in addiction psychiatry or addiction medicine
  - Complete an 8 hours training
    - *on line or by attending training*

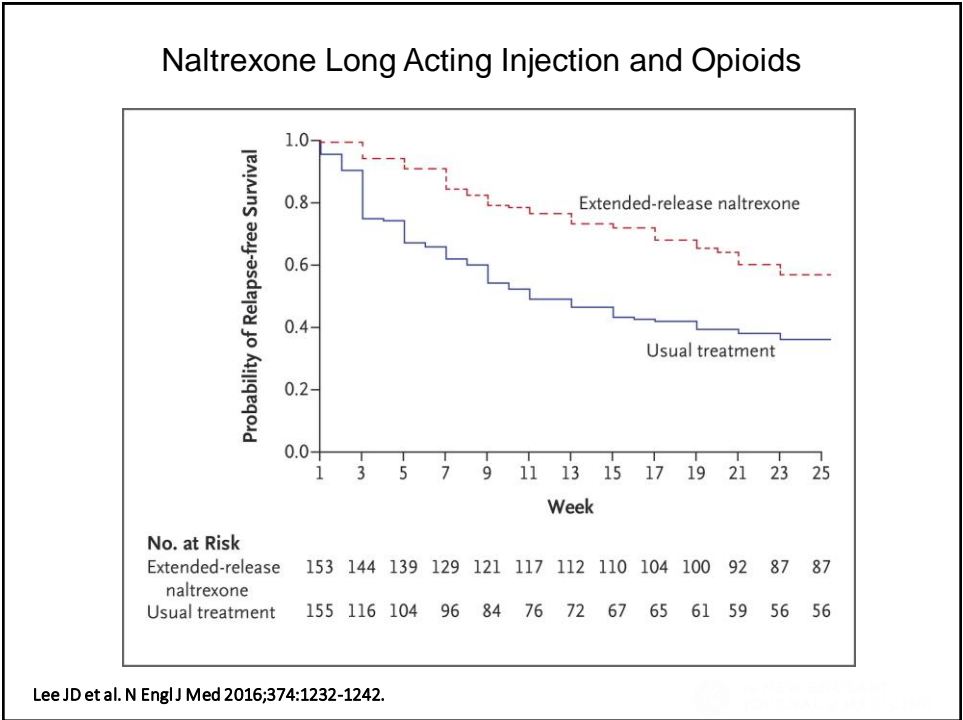
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## Free DHS X-Waiver Trainings

Friday, March 5, 2021, 9am	Friday, May 21, 1-5pm
Wed, Mar 10, 2021, 4pm-8pm	Friday, June 4, 9am
Tuesday, Mar 30, 2021, 9am-1pm	Friday, June 11, 1-5pm
Thursday, April 8, 9am-1pm	Thursday, June 24, 8am-12pm
Friday, April 9, 2021, 9am	Thursday, July 8, 8am-12pm
Friday, April 30, 2021, 1-5pm	Friday, July 9, 9am
Friday, May 7, 9am	Friday, August 6, 9am
Thursday, May 13, 8am-12pm	



Email [buprenorphine@dhs.lacounty.gov](mailto:buprenorphine@dhs.lacounty.gov) to sign up

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Comparative effectiveness of extended-release naltrexone versus buprenorphine-naloxone for opioid relapse prevention (X:BOT): a multicentre, open-label, randomised controlled trial



Ease of induction is a limitation of naltrexone and an advantage of buprenorphine.

Once successfully inducted to either naltrexone LAI or buprenorphine / naloxone similar outcomes:

- relapse-free survival
- overall relapse
- retention in treatment
- negative urine samples
- days of opioid abstinence
- self-reported cravings

Lee, J. D., Nunes, E. V., Novo, P., Bachrach, K., Bailey, G. L., Bhatt, S., ... & King, J. (2017). Comparative effectiveness of extended-release naltrexone versus buprenorphine-naloxone for opioid relapse prevention (X: BOT): a multicentre, open-label, randomised controlled trial. *The Lancet*.

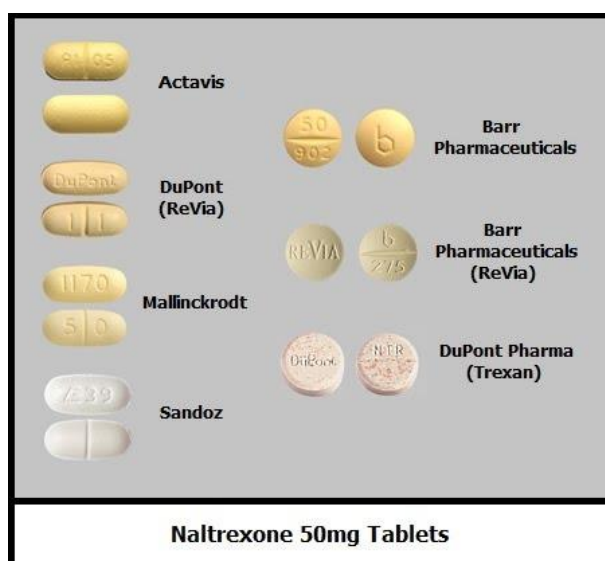
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## Alcohol Pharmacotherapy

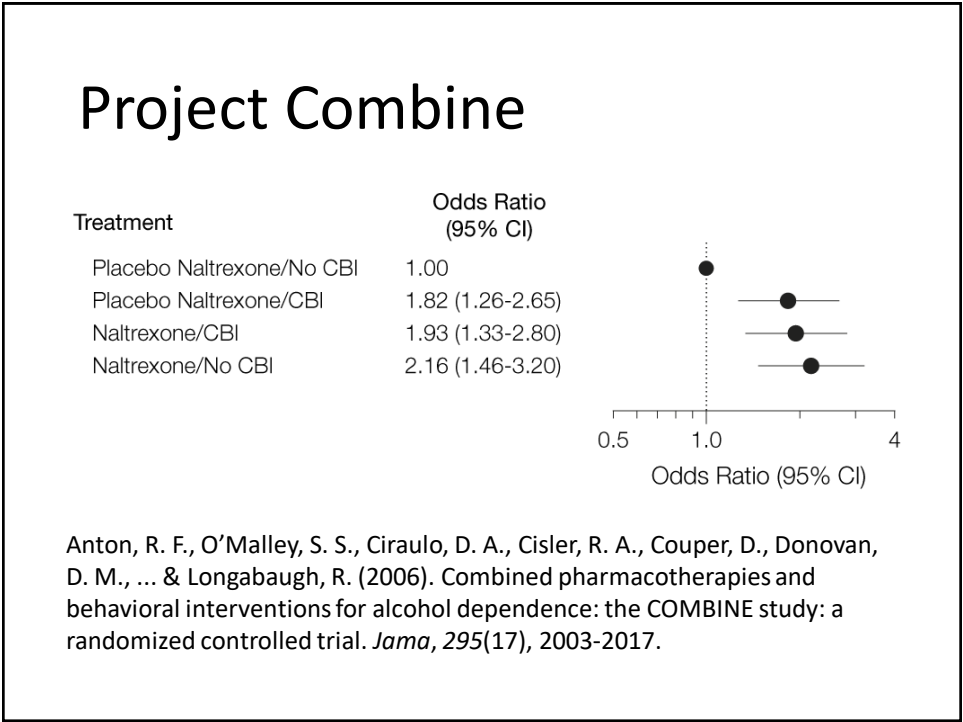
- Naltrexone → antagonist at the Mu opioid receptor
- Acamprosate → glutamate receptor modulation
- Disulfiram → irreversibly binds and blocks acetaldehyde dehydrogenase

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## Naltrexone (oral)



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## Naltrexone

One Pill  
A Day


Help reduce alcohol cravings  
Cut down on how much alcohol you are drinking

**HOW to take Naltrexone**

Before getting started:




1. Tell staff if you have a history of liver problems like cirrhosis, swelling of your stomach, or yellowing of your eyes.



2. Do not take Naltrexone if you have taken any narcotic pain pills like heroin, fentanyl, Subutex, Suboxone, methadone or tramadol in the past week.

**Instructions:**  
Take **1** 50mg tablet each day.  
Follow-up with your medical provider in 2 to 4 weeks to discuss how naltrexone is working.



**If you have stomach aches or headache:**  
Take  $\frac{1}{2}$  tablet each day for **3** days and then **1** full tablet each day after.

Please notify the staff if you are having any worsening withdrawal and if the dose of medication you are receiving is not working to treat your withdrawal.  
Sponsored by the National Health Foundation through a Sierra Health Foundation MAT Access Points Project award and developed in partnership with Los Angeles County Department of Health Services, CH Bridge, and the Center for Care Innovation's Addiction Treatment Matrix Reimbursement program.

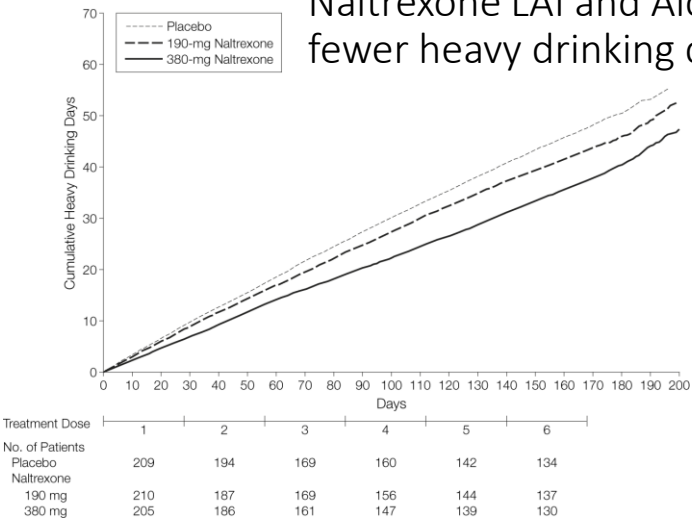
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Naltrexone Long Acting Injection (Vivitrol)



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Naltrexone LAI and Alcohol:  
fewer heavy drinking days



Garbutt, J. C., Kranzler, H. R., O'Malley, S. S., Gastfriend, D. R., Pettinati, H. M., Silverman, B. L., ... & Vivitrex Study Group. (2005). Efficacy and tolerability of long-acting injectable naltrexone for alcohol dependence: a randomized controlled trial. *Jama*, 293(13), 1617-1625.

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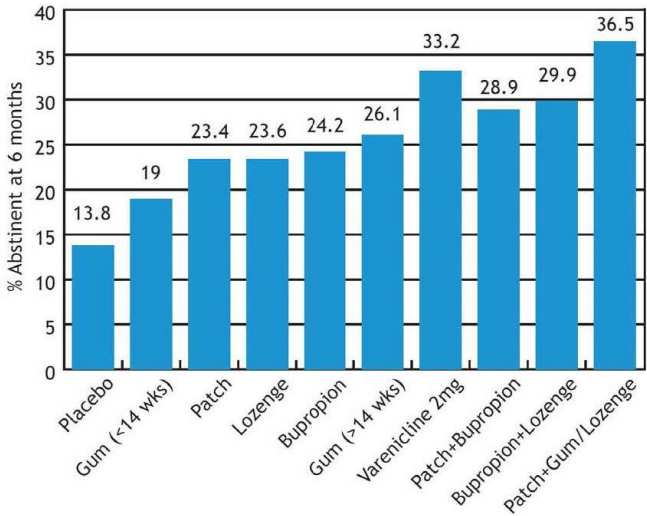
PHARMACOLOGIC PRODUCT GUIDE: FDA-Approved Medications for Smoking Cessation

PRODUCT	NICOTINE REPLACEMENT THERAPY (NRT) FORMULATIONS					BUPROPION SR	VARENICLINE
	GUM	LOZENGE	TRANSDERMAL PATCH	NASAL SPRAY	ORAL INHALER		
Nicorette®/Generic OTC 2 mg, 4 mg original, cinnamon, fruit, mint	Nicorette®/Generic Nicorette® Mint OTC 2 mg, 4 mg; cherry, mint	NicoDerm CQ®/Generic OTC (NicoDerm Q2, generic) 7 mg, 14 mg, 21 mg (24 hr release)	Nicotrol NSP® Rx Metered spray 10 mg/mL nicotine solution	Nicotrol Inhaler® Rx 10 mg cartridge delivers 4 mg inhaled vapor	Zyban®/Generic Rx 150 mg sustained-release tablet	Chantrel® Rx 0.5 mg, 1 mg tablet	
PRECAUTIONS	•Recent (≤ 2 weeks) myocardial infarction •Serious underlying arrhythmias •Serious or worsening angina pectoris •Temporomandibular joint disease •Pregnancy and breastfeeding •Adolescents (<18 years)	•Recent (≤ 2 weeks) myocardial infarction •Serious underlying arrhythmias •Serious or worsening angina pectoris •Pregnancy and breastfeeding •Adolescents (<18 years)	•Recent (≤ 2 weeks) myocardial infarction •Serious underlying arrhythmias •Serious or worsening angina pectoris •Underlying chronic nasal disorders (rhinitis, nasal polyps, sinusitis) •Severe reactive airway disease •Pregnancy and breastfeeding •Adolescents (<18 years)	•Recent (≤ 2 weeks) myocardial infarction •Serious underlying arrhythmias •Serious or worsening angina pectoris •Branchospastic disease •Pregnancy and breastfeeding •Adolescents (<18 years)	•Concomitant therapy with medications/conditions known to lower the seizure threshold •Hepatic impairment •Pregnancy and breastfeeding •Adolescents (<18 years) •Treatment-emergent neuropsychiatric symptoms*	•Severe renal impairment (dosage adjustment is necessary) •Pregnancy and breastfeeding •Adolescents (<18 years) •Treatment-emergent neuropsychiatric symptoms*	
	•Do not exceed 300 mg/day •Begin therapy 1-2 weeks prior to quit date •Do not use after 12 weeks •Do not use after 12 weeks •Do not use after 12 weeks	•Do not exceed 300 mg/day •Begin therapy 1-2 weeks prior to quit date •Do not use after 12 weeks •Do not use after 12 weeks •Do not use after 12 weeks	•Do not exceed 300 mg/day •Begin therapy 1-2 weeks prior to quit date •Do not use after 12 weeks •Do not use after 12 weeks •Do not use after 12 weeks	•Do not exceed 300 mg/day •Begin therapy 1-2 weeks prior to quit date •Do not use after 12 weeks •Do not use after 12 weeks •Do not use after 12 weeks	•Do not exceed 300 mg/day •Begin therapy 1-2 weeks prior to quit date •Do not use after 12 weeks •Do not use after 12 weeks •Do not use after 12 weeks	•Do not exceed 300 mg/day •Begin therapy 1-2 weeks prior to quit date •Do not use after 12 weeks •Do not use after 12 weeks •Do not use after 12 weeks	
DOSING	1st cigarette ≤30 minutes after waking: 4 mg 1st cigarette >30 minutes after waking: 2 mg Weeks 1-6: 1 piece q 1-2 hours Weeks 7-9: 1 piece q 2-4 hours Weeks 10-12: 1 piece q 4-8 hours •Maximum, 24 pieces/day •Chew each piece slowly •Park between cheek and gum when popping or tingling sensation appears (1-5-30 chew) •Resume chewing when tingles fade •Repeat chew/park steps until most of the nicotine is gone (tingle does not return; generally 30 min) •Park in different areas of mouth •No food or beverages 15 minutes before or during use •Duration: up to 12 weeks	1st cigarette ≤30 minutes after waking: 4 mg 1st cigarette >30 minutes after waking: 2 mg Weeks 1-6: 1 lozenge q 1-2 hours Weeks 7-9: 1 lozenge q 2-4 hours Weeks 10-12: 1 lozenge q 4-8 hours •Maximum, 20 lozenges/day •Allow to dissolve slowly (20-30 minutes) •Nicotine release may cause a warm, tingling sensation •Do not chew or swallow •Occasionally rotate to different areas of the mouth •No food or beverages 15 minutes before or during use •Duration: up to 12 weeks	>30 cigarettes/day: 21 mg/day x 4-6 weeks 14 mg/day x 2 weeks 7 mg/day x 2 weeks •Maximum, 21 mg/day •For best results, initially use at least 8 doses/day •Do not sniff, swallow, or inhale through the nose as the spray is being administered •Duration: 3 months	1-2 doses/hour (8-40 doses/day) One dose = 2 sprays (one in each nostril), each spray delivers 0.5 mg of nicotine to the nasal mucosa •Maximum - 5 doses/hour or - 40 doses/day •For best results, initially use at least 8 doses/day •Do not sniff, swallow, or inhale through the nose as the spray is being administered •Duration: 3 months	6-16 cartridges/day Individualize dosing; initially use 1 cartridge q 1-2 hours •Best effects with continuous puffing for 20 minutes •Initially use at least 6 cartridges/day •Nicotine in cartridge is depleted after 20 minutes of active puffing •Inhale into back of throat or puff in short bursts •Do NOT inhale into the lungs (like a cigarette) but "pull" as if lighting a pipe •Open cartridge retains potency for 24 hours •No food or beverages 15 minutes before or during use •Duration: 3-6 months	150 mg po q AM x 3 days, then 150 mg po bid •Do not exceed 300 mg/day •Begin therapy 1-2 weeks prior to quit date •Avoid bedtime dosing to minimize insomnia •Dose tapering is not necessary •Duration: 7-12 weeks, with maintenance up to 6 months in selected patients	Days 1-3: 0.5 mg po q AM Days 4-7: 0.5 mg po bid Weeks 2-12: 1 mg po bid •Begin therapy 1 week prior to quit date •Take dose after eating and with a full glass of water •Dose tapering is not necessary •Dosing adjustment is necessary for patients with severe renal impairment •Duration: 12 weeks; an additional 12-week course may be used in selected patients •May initiate up to 35 days before target quit date OR may reduce smoking over a 9-week period of treatment prior to quitting and continue treatment for an additional 12 weeks

[https://www.aafp.org/dam/AAFP/documents/patient\\_care/tobacco/pharmacologic-guide.pdf](https://www.aafp.org/dam/AAFP/documents/patient_care/tobacco/pharmacologic-guide.pdf)

April 14, 2020

FIGURE 1. EFFICACY OF MEDICATIONS FOR SMOKING CESSATION<sup>6,9,12-1</sup>



United States Department of Veterans Affairs. Primary Care & Tobacco Cessation Handbook. Washington, DC : U.S. Department of Veterans Affairs, Veterans Health Administration, 2014. Retrieved from <https://pulsesearch.princeton.edu/catalog/9567271> - Accessed 12/1/2015.

## Medications for Methamphetamine Use Disorder (none are FDA approved)

- Methylphenidate (moderate to high dose in frequent users/those with ADHD)
- Bupropion (low-level users who will adhere)
- Topiramate (low-level users)
- Naltrexone (for those who had already stopped using methamphetamine for 2+ weeks)
- Naltrexone LAI and high dose bupropion (small effect)
- Dextroamphetamine (one small study)
- Mirtazapine (two small studies)

<http://custom.cvent.com/10D3BAE39269457884C1D96DE1D-F8D8D/files/f9dd789e619c417e8d753a1c767a28b8.pdf>

<http://vimeo.com/390978438/7e844d0b02>

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## Formulary

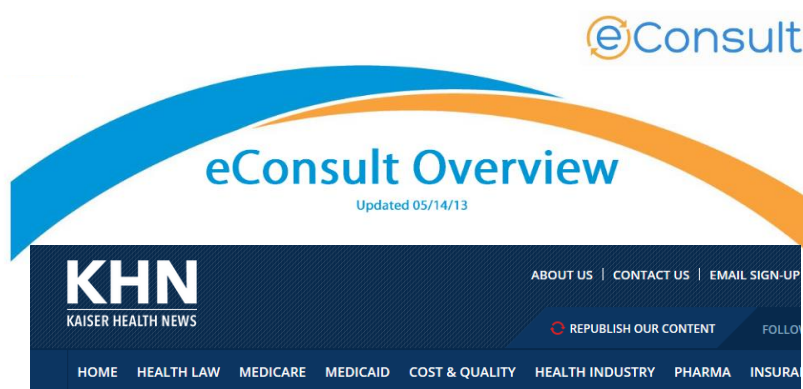
- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• <u>Opioids</u> <ul style="list-style-type: none"> <li>• Buprenorphine</li> <li>• Naltrexone</li> <li>• **Naloxone</li> </ul> </li> <li>• <u>Alcohol</u> <ul style="list-style-type: none"> <li>• Disulfiram</li> <li>• Naltrexone</li> <li>• Topiramate (off label for AUD)</li> </ul> </li> <li>• <u>Tobacco</u></li> </ul> | <ul style="list-style-type: none"> <li>• Nicotine</li> <li>• Bupropion</li> <li>• Varenicline</li> <li>• <u>Off Label</u> <ul style="list-style-type: none"> <li>• Gabapentin (off label for AWS)</li> <li>• Carbamazepine (off label AWS)</li> <li>• Mirtazapine (off label for methamphetamine use disorder)</li> </ul> </li> </ul> |
|---|---|

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- Opioids
  - Methadone
  - Buprenorphine
  - Naltrexone
  - \*\*Naloxone
- Alcohol
  - Disulfiram
  - Naltrexone
  - Acamprosate
- Tobacco
  - Nicotine
  - Bupropion
  - Varenicline
- Others
  - No FDA-approved medications (yet)

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## Addiction Medicine eConsult



### Los Angeles County Scores An E-Success In Managing Specialist Care

By Anna Gorman | March 8, 2017

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MAT

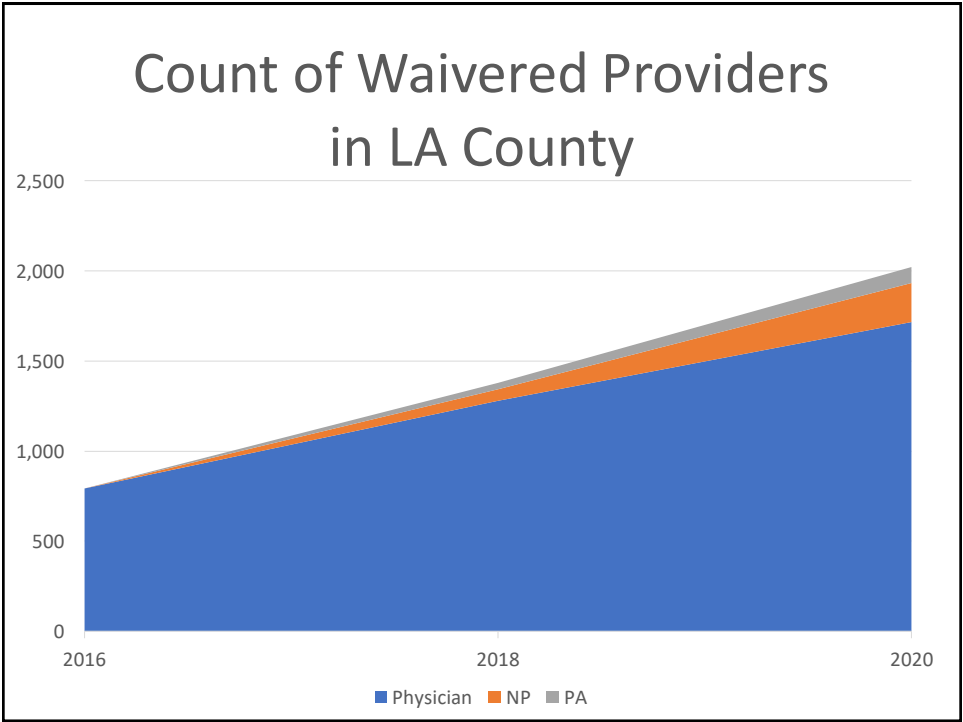
LA

CLINIC DIRECTORY

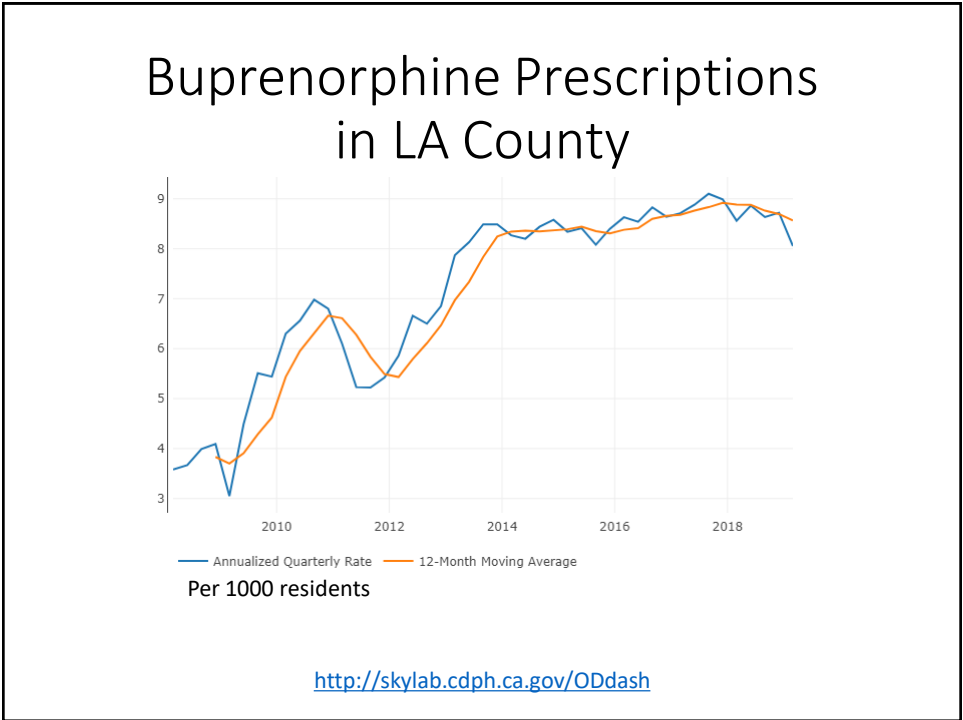
Medications for Addiction Treatment (MAT)  
Clinic Searchable Directory

<http://losangelesmat.org>

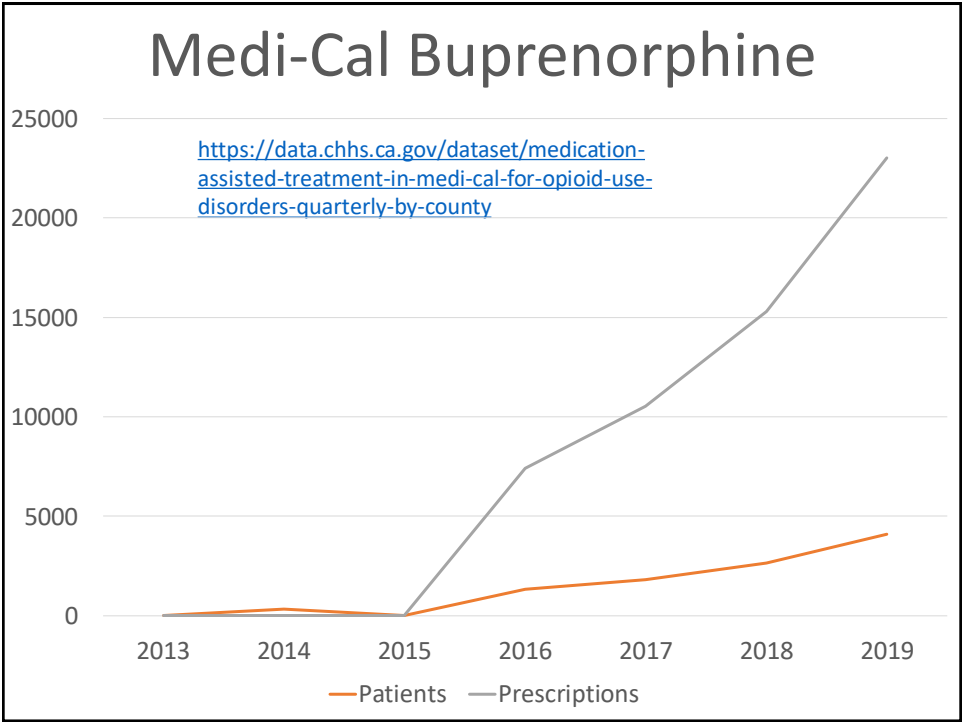
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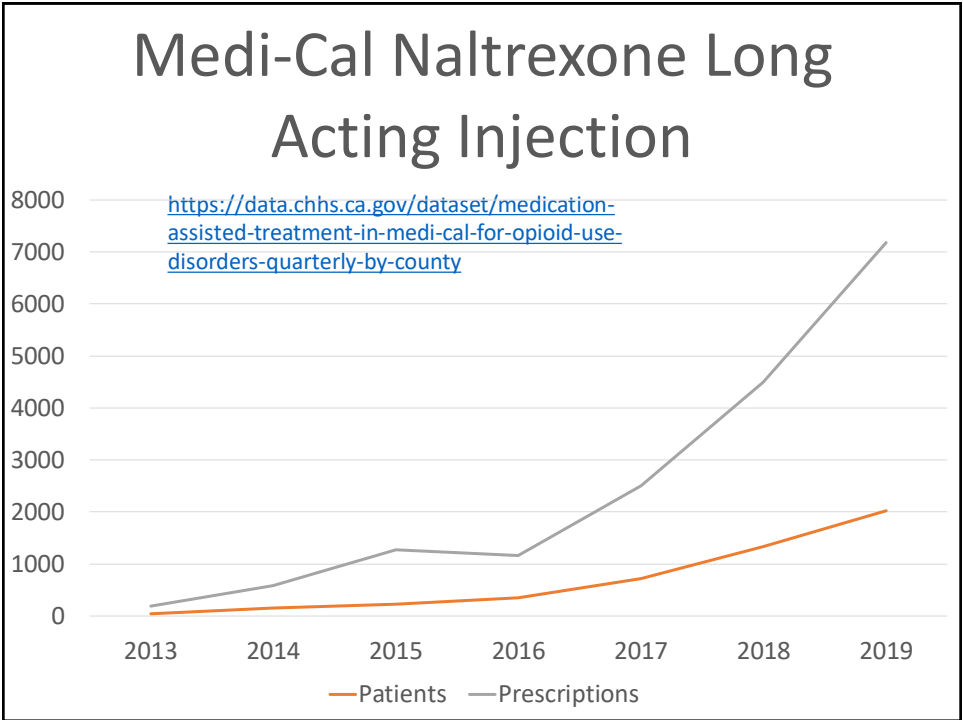
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### Returning to Case Presentation

10 Mr. Brown is a **34 year-old** male with chronic Hep C and opioid, alcohol, and tobacco use disorders, and possibly cannabis use disorders who injects 1g of heroin daily. He arrives at the Hep C clinic to begin a 12 week trial of sofosbuvir-velpatasvir.

10 He's not ready to quit drinking alcohol or stop smoking tobacco cigarettes.



Doc Brown, Back to the Future, Universal Pictures

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Ambulatory Care Network

HEALTH SERVICES • LOS ANGELES COUNTY

Medications for Addiction Treatment (MAT) Consultation

Support Available 7 days per week

MAT can be started in **any setting**. Safe via telehealth. Save lives, improve health and social functioning.

DHS on-call providers help you start MAT for patients with **alcohol and/or opioid use disorder**.

Patients benefit, **even if not yet ready to quit** drinking/using opioids.

Reminder: **offer Narcan**/Naloxone in high risk settings

MAT Consult Line:

(213) 288-9090



Health Services

2/24/2021

Sponsored by National Health Foundation for MAT Access Points Project, in partnership with Los Angeles County and CA Bridge

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Questions?

[bhurley@dhs.lacounty.gov](mailto:bhurley@dhs.lacounty.gov)

Interested in more? Come to:

• ASAM Annual Meeting • CSAM Annual Meeting • AAAP Annual Meeting

(Virtual in April 2021!) (Aug or Sept 2021!) (Virtual! Dec 2021)

<http://www.asam.org> <http://csam-asam.org> <http://www.aaap.org>

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## Question 1

### What if they overdose on MAT or go through withdrawals?

MAT prevents overdose. It doesn't worsen or cause overdose.

If a client stops MAT (methadone or buprenorphine) and goes through withdrawals they should contact their methadone clinic or CHW who can contact the on-call line to get the patient a medical evaluation to restart MAT as soon as possible.

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## Question 2

### What if the client sells their MAT prescription on the streets? I don't feel comfortable if a client sells the MAT prescription on the street and someone overdoses on such medications that is not prescribed to them.

Understood. I wouldn't like that either. However, MAT doesn't cause overdose – it protects people from overdose. Also, I'd rather given the client a chance to stabilize on buprenorphine than withhold buprenorphine (because lack of access to buprenorphine increases the risk of death from opioid overdose).

For an article discussing this, check out: Lofwall MR, Walsh SL. A review of buprenorphine diversion and misuse: the current evidence base and experiences from around the world. J Addict Med. 2014 Sep-Oct;8(5):315-26. doi: 10.1097/ADM.0000000000000045. PMID: 25221984; PMCID: PMC4177012. <http://www.ncbi.nlm.nih.gov/pmc/articles/pmid/25221984>

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## Question 3

How is MAT in alignment with 12-Step programs' philosophy? There are some 12-Step Programs that shun someone in recovery on MAT or any other medications.

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## Question 3

The Central Committee of Alcoholics Anonymous' official stance is that it has no opinion, positive or negative, on MAT. But it will not interfere if groups exclude people on Suboxone or methadone

AA group members telling other members what they should do about MAT violates a long held 12-step policy of "AA members should not give medical advice to each other." see:

[http://www.aa.org/assets/en\\_US/p-11\\_aamembersMedDrug.pdf](http://www.aa.org/assets/en_US/p-11_aamembersMedDrug.pdf)

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### Question 3

- There is a variety of views, depending on the group
- AA tends to have less stigmatized attitudes than NA does
- Not every member must disclose that they use MAT to the groups they attend

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### Question 4

#### How is MAT more effective than groups or 1:1 therapy?

For opioid use disorder, it stabilizes dopamine in the brain for more people more often and more effectively than groups and 1:1 therapy. This is less true for alcohol and tobacco use disorders, where therapy is more effective.

To read more, see:

<http://doi.org/10.1002/14651858.CD004147.pub4>

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## Question 5

### Why MAT?

Because it keeps people alive, keeps them coming to treatment, and helps people use drugs less.

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## Question 6

### How is MAT effective without therapy or 12-Step programming?

For opioid use disorder, because it stabilizes dopamine in the brain for more people more often and more effectively than therapy and 12 steps. This is less true for alcohol and tobacco use disorders, where therapy can be as effective as medications. I want all my patients to get therapy and support for their recovery, but without MAT most (90%) of people with opioid use disorder don't stick with therapy or 12-step programming.

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## Question 7

### Will MAT harm the body and/or mind?

Every medication has risks and side effects. For people with opioid use disorder, buprenorphine's risks and side effects include risk of diversion, withdrawal if discontinued, headache, dry mouth, and upset stomach. The benefits of buprenorphine are staying alive, reduced opioid use, and staying in treatment. For most patients with opioid use disorder, the benefits of buprenorphine outweigh the risks.

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## Question 8

### How does MAT work for someone with chronic medical issues, and on other medications for health and mental health?

It works as well as for people without chronic medical issues, and on other medications for health and mental health. There are no medications for health and mental health that prevent a patient from being able to benefit from MAT.

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