



# Medicated Assisted Treatment

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# Medication Treatment for Opioid Use Disorder

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# Disclosures

Joe Merrill, Charles Morgan, and Ann Grieppe,  
Miriam Komaromy and Leslie Hulvershorn have  
nothing to disclose.





# Medications for Opioid Use Disorder

- Buprenorphine (sublingual and implantable)
- Naltrexone (oral and extended release injectable)
- Methadone

“Detox” has no long-term effect on outcomes; it is medication maintenance that saves lives and reduces relapse



**Acute Use**

**Chronic Use**

Alford, Boston  
University, 2012



# Pharmacotherapy for Opioid Addiction: **Methadone**

- Most effective
  - ↑ survival, treatment retention, employment
  - ↓ illicit opioid use, hepatitis and HIV infections, criminal activity
- Highly regulated, dispensed at Opioid Treatment Programs (OTP)
  - Supervised daily dosing with take-home doses if stable
  - Counseling, urine testing
  - Psychiatric, medical services often not provided
  - **Illegal** to prescribe methadone **for addiction** in general practice
- Cost-effective
  - Every dollar invested generates \$4-5 in savings



# Pharmacotherapy for Opioid Addiction: **Methadone**

## Daily, observed dosing

- Full opioid agonist
- Onset within 30-60 minutes
- Long-acting: Daily dosing effective for addiction
- Dose 20-40 mg for acute withdrawal
- >80 mg for craving and “blockade”
- To evaluate stability, ask about take-home doses
- **Multiple** medication interactions

Advise staying in treatment until social, medical, psychiatric, legal, and family issues are stable.

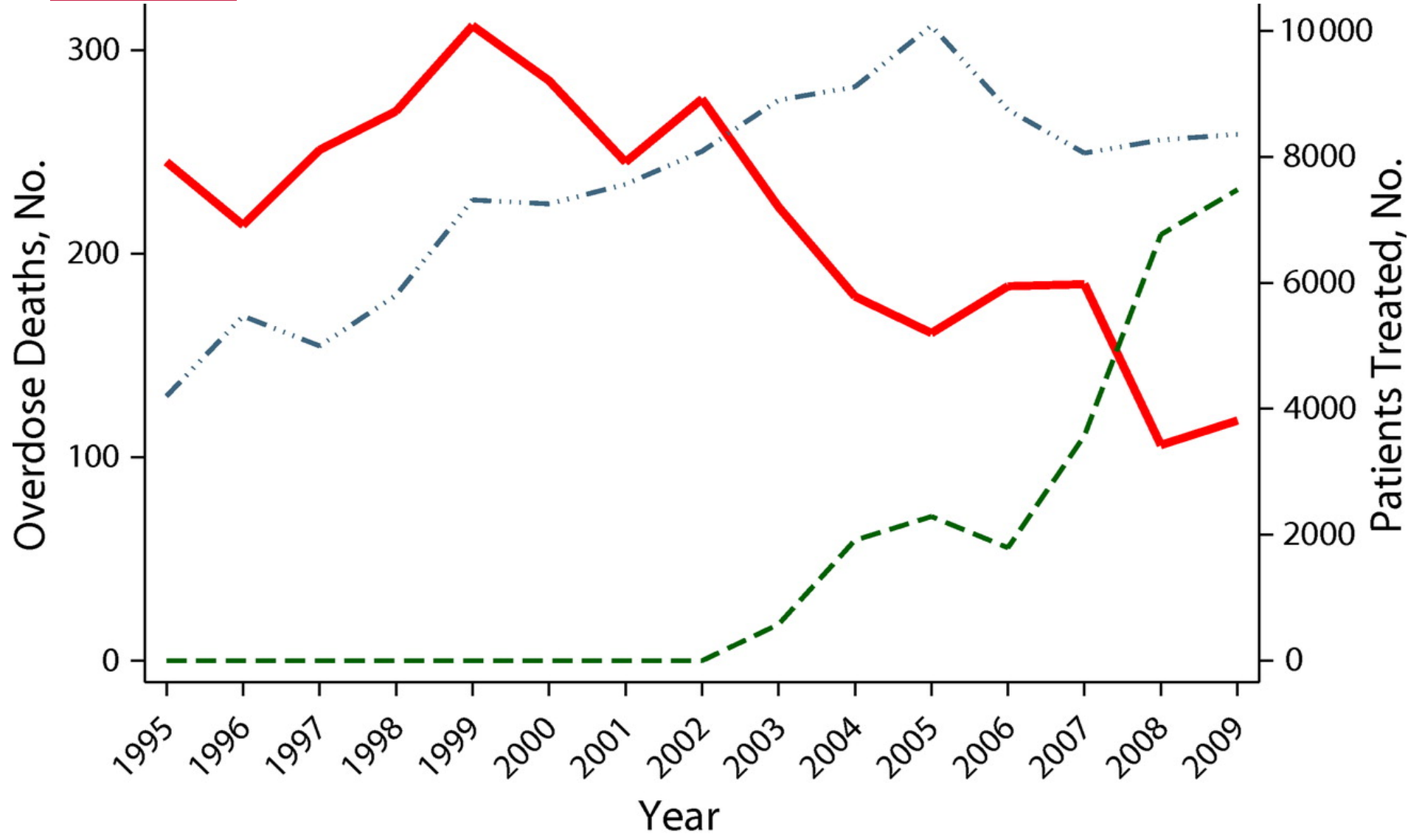
- “Detox” therapy has no long-term effect on outcomes
- Longer duration, higher dose treatment most effective
- For some patients, methadone therapy should be lifelong, as risk of relapse is high after cessation



# Pharmacotherapy for Opioid Addiction: **Buprenorphine**

- 2000 Federal Drug Addiction Treatment Act (“DATA-2000”):
  - Made office-based addiction treatment by physicians legal
  - Must complete 8-hour training and obtain federal waiver
- 2002: Suboxone (buprenorphine/naloxone) FDA approved
  - Outcomes much superior to psychosocial treatment alone
  - Longer treatment duration is more effective
- Compared to methadone:
  - Similar abstinence from illicit opioids and decreased craving
  - Lower retention in treatment
  - Can be prescribed in general practice, lowering barriers to treatment





— Heroin overdoses    - - - Buprenorphine patients    - · - · - Methadone patients

Schwartz, AJPH, 2012



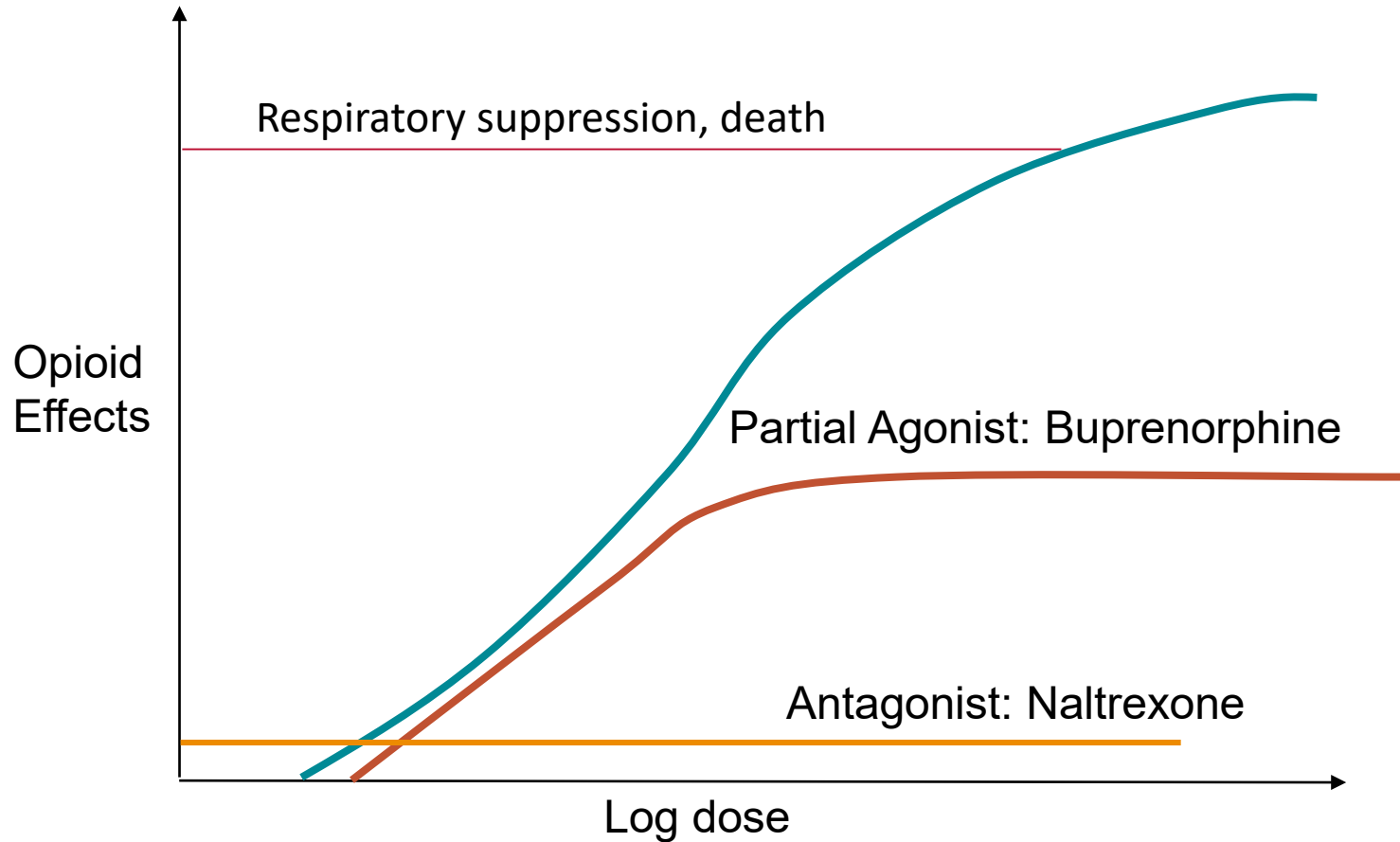
# Pharmacotherapy for Opioid Addiction: **Buprenorphine**

- Partial opioid agonist, so safer than methadone
- High mu receptor affinity, so blocks other opioids
- Formulated with naloxone - abuse deterrent
- Sublingual dosing and newer implant (Probuphine) and extended release subcutaneous injectable (Sublocade)
- Can precipitate withdrawal in tolerant patients
- Requires induction after patient enters mild-moderate withdrawal
- Implant approved for stable patients on  $\leq 8$  mg buprenorphine
- Extended release subcutaneous injectable approved in those initiated on transmucosal buprenorphine 8-24mg/day after a minimum of 7 days





# Why is Overdose Potential Low with Buprenorphine?



Agonist: Methadone, Heroin, etc.

Partial Agonist: Buprenorphine

Antagonist: Naltrexone

Respiratory suppression, death

Opioid Effects

Log dose



# Buprenorphine in Primary Care

- Advantages of buprenorphine in primary care:
  - Setting built for chronic disease management
  - Reduces the stigma of addiction treatment
  - Facilitates management of mental health and medical co-morbidities and preventive care
  - Important tool when problems arise during chronic opioid therapy
  - Public health benefit: increases local access to lifesaving care
- Highly gratifying form of treatment!



# Naltrexone

- Opioid antagonist that blocks other opioids
- Does not lead to physical dependence, or to withdrawal when stopped
- Causes acute withdrawal in opioid-dependent patients
- Can be used in office-based settings without added training
- Effective in alcohol use disorder treatment
- Two formulations available:
  - Oral ReVia 50 mg PO daily
  - Injectable Vivitrol 380 mg IM monthly



# Naltrexone for Opioid Use Disorder

- Requires opioid abstinence prior to initiation, a major barrier since most treatment-seeking patients are actively using opioids
- Russian studies show benefit in population where opioid substitution therapy is not available
- Recent study (Lancet 2018) found that relapse events were higher with extended release naltrexone when compared to buprenorphine – most or all of the difference in relapse was due to induction failure with extended release naltrexone
  - In patients successfully initiated on naltrexone, relapse rates were similar compared to buprenorphine



# Summary: Medications for Opioid Use Disorder

- Prescription opioid and heroin epidemics are major public health problems
- Medications are an essential component of evidence-based treatment
- Methadone and buprenorphine are the most effective pharmacotherapies for opioid use disorder
- Naltrexone can also be used, but patients must go through an opioid-free period (7-10 days) prior to induction
- Primary care teams can play an important role in treatment of opioid use disorders and prevention of overdose



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