HCV and People Who Inject Drugs

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Epidemiology

- Injection drug use now accounts for at least 60 percent of HCV transmission in the United States.
- 75-90% of PWID are HCV Ab positive.

Centers for Disease Control and Prevention. Viral Hepatitis Surveillance—United States, 2014. LINK CDC.GOV[1]

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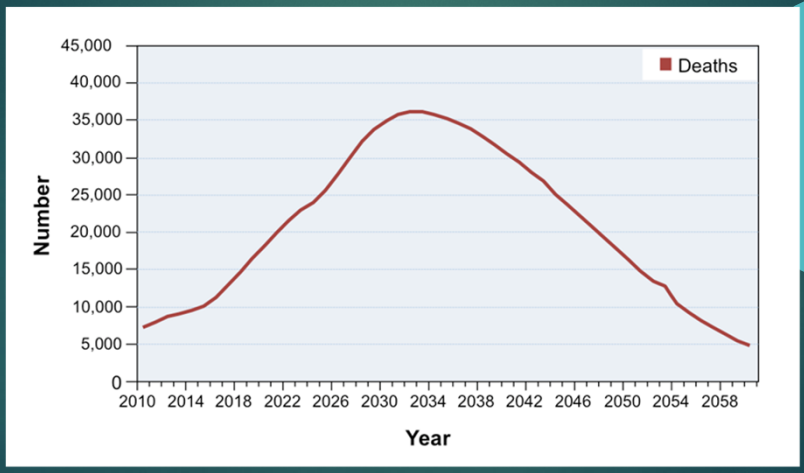
Deaths from prevalent HCV forecasted to peak in 2030s…



Rein et al. Dig Liver Dis. 2011;43:66-72.

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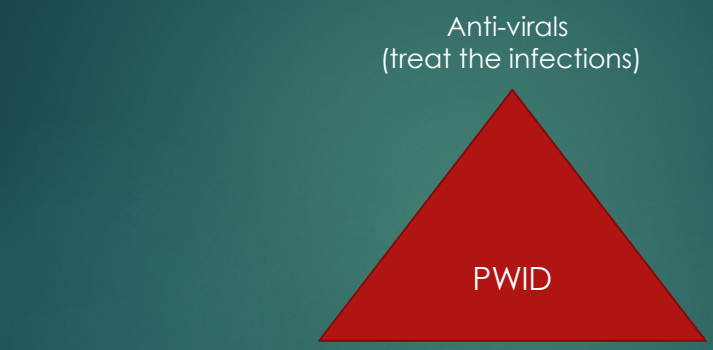
Unless something changes

4

Trifecta of interventions needed



Needle and syringe programs
(decrease risk of infection)

Medications for OUD
(decrease the risk of injecting)

www.worldhepatitissummit.com

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Medications for Opioid Use Disorder (MOUD)

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Opioid Agonists

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Methadone

- Full agonist at the opioid receptor
- Half life greater than 24 hours
- OTP only
- Ok to dispense in hospitals

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Methadone

- Decreases use of illicit opioids
- Increases retention in treatment
- Decreases incidence of new HIV/Hepatitis C infections
- Reduces criminality

Gowing LR, Farrell M, Bornemann R, et al *J Gen Intern Med*. 2006.
Lawrinson P, Ali R, Buavirat A, et al.. *Addiction*. 2008.
Nolan S, Dias Lima V, Fairbairn N, et al. *Addict Abingdon Engl*.
MacArthur, G.J., et al., BMJ, 2012.

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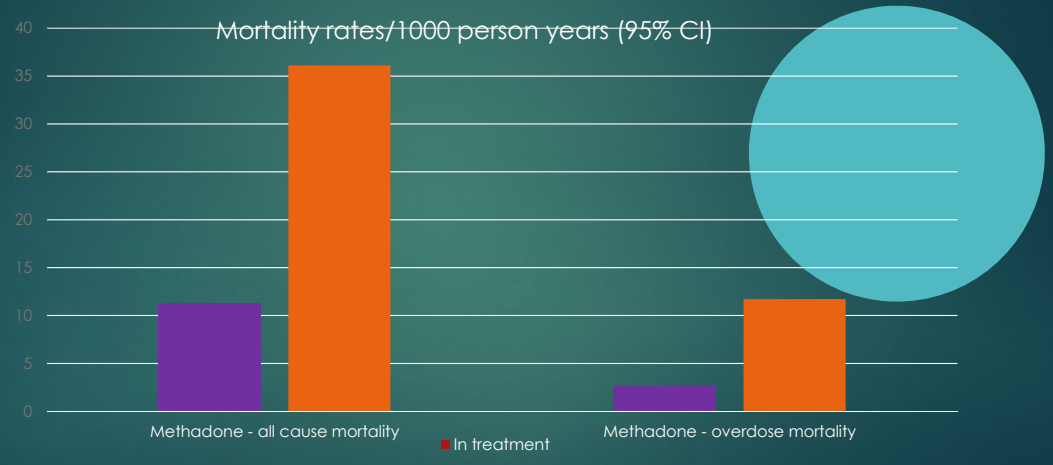
Mortality Risk during and after methadone treatment



Mortality Risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. Sordo, et al. BMJ 2017.

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Buprenorphine

- Partial agonist at the opioid receptor
- Prescribers must have DATA waiver
- Patient limits
- Ok to dispense in hospitals

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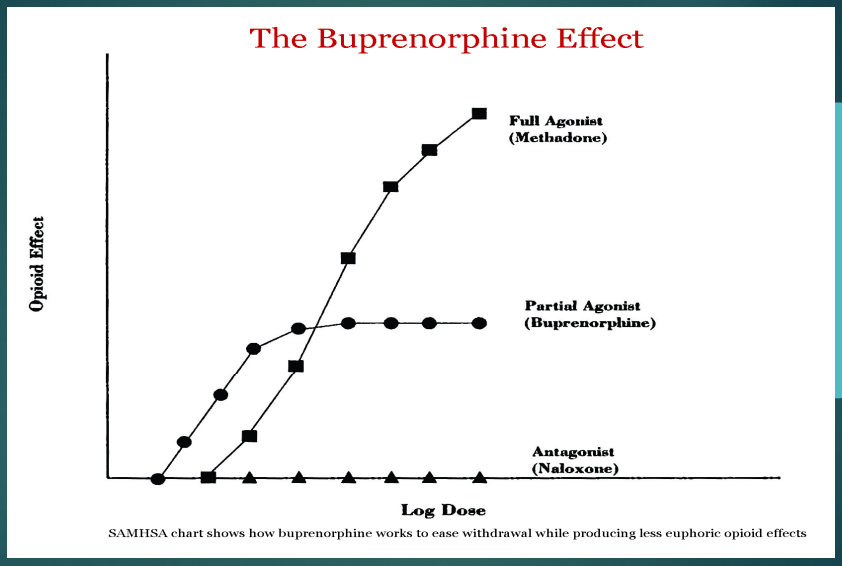

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Buprenorphine

- Decreases use of illicit opioids
- Increases retention in treatment
- Decreases incidence of new HIV/Hepatitis C infections
- Associated with decreases in ED visits and hospitalizations
  - 14% fewer ED visits and 18% fewer hospital admissions after 1 year
  - 30 day and 90 day readmission reduced by 53% and 43% for patients with OUD on buprenorphine v no buprenorphine

Tsui JI, Evans JL, Lum PJ, Hahn JA, Page K. *JAMA Intern Med*. 2014
MacArthur, G.J., et al., BMJ, 2012.
Lo-Ciganic et al., Addiction 2016
Moreno et al, JAM 2019

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Mortality Risk during and after buprenorphine treatment

Mortality Risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. Sordo, et al. BMJ 2017.

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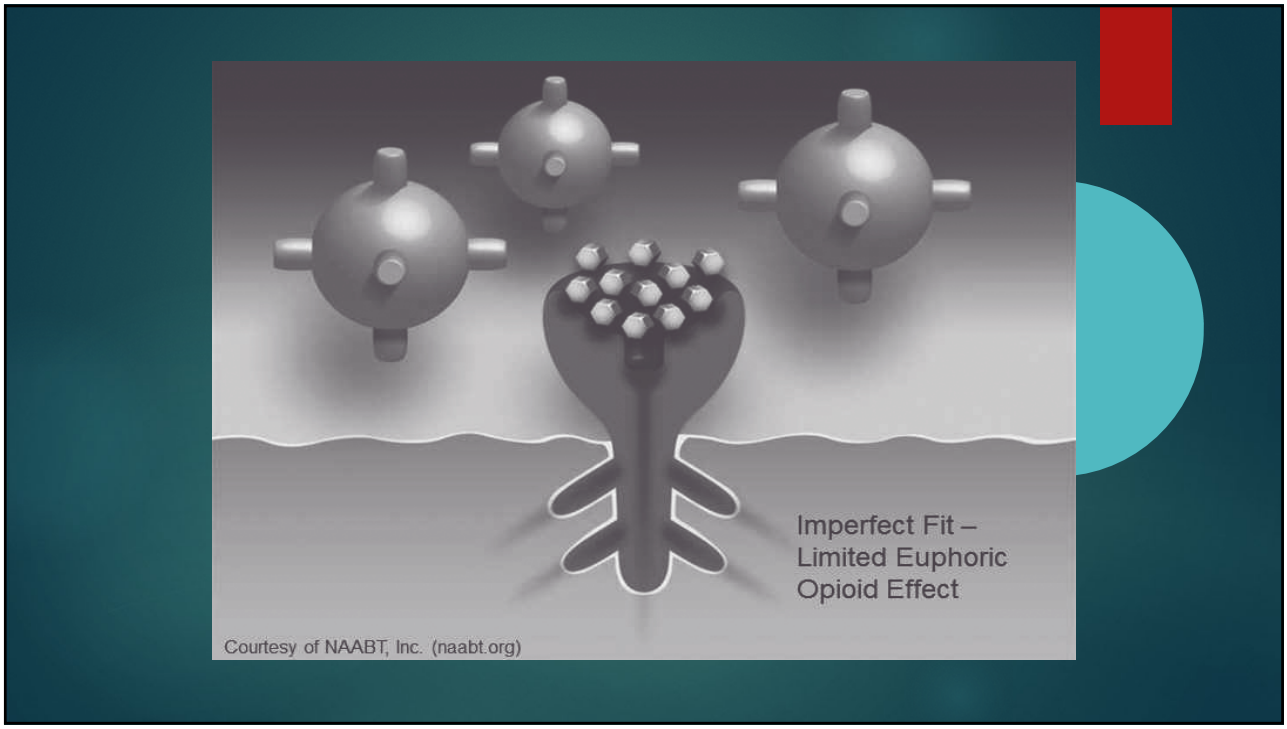
Imperfect Fit –
Limited Euphoric
Opioid Effect
Courtesy of NAABT, Inc. (naabt.org)

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XR Naltrexone

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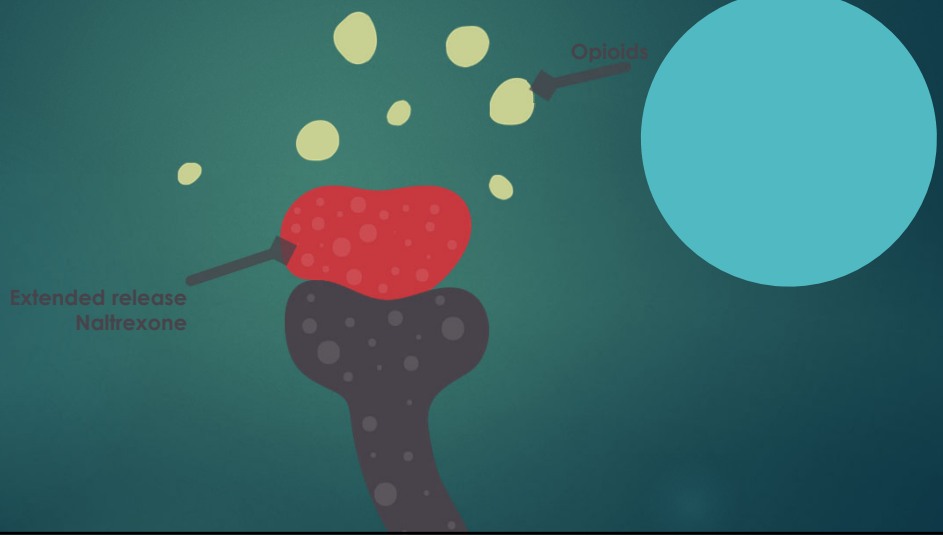
XR Naltrexone



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XR Naltrexone

One 380 mg deep muscle injection in the buttock every 4 weeks

No special waiver training

Need to be opioid free

¼ patients do not tolerate induction

No good data on mortality or reduction in HIV/Hep C

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Naloxone Rescue

46% reduction in community overdose rates in Massachusetts

Walley BMJ 2013

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Annals of Internal Medicine ORIGINAL RESEARCH

Nonrandomized Intervention Study of Naloxone Coprescription for Primary Care Patients Receiving Long-Term Opioid Therapy for Pain

Phillip O. Coffin, MD, MIA; Emily Behar, MA; Christopher Rowe, MPH; Glenn-Milo Santos, PhD, MPH; Diana Coffa, MD; Matthew Bald, MD; and Eric Vittinghoff, PhD

Background: Unintentional overdose involving opioid analgesics is a leading cause of injury-related death in the United States.

Objective: To evaluate the feasibility and effect of implementing naloxone prescription to patients prescribed opioids for chronic pain.

Design: 2-year nonrandomized intervention study.

Setting: 6 safety-net primary care clinics in San Francisco, California.

Participants: 1985 adults receiving long-term opioid therapy for pain.

Intervention: Providers and clinic staff were trained and supported in naloxone prescribing.

Measurements: Outcomes were proportion of patients prescribed naloxone, opioid-related emergency department (ED) visits, and prescribed opioid dose based on chart review.

Results: 38.2% of 1985 patients receiving long-term opioids were prescribed naloxone. Patients prescribed higher doses of opioids and with an opioid-related ED visit in the past 12 months were independently more likely to be prescribed naloxone. Patients who received a naloxone prescription had 47% fewer opioid-related ED visits per month in the 6 months after receipt of the prescription (incidence rate ratio [IRR], 0.53 [95% CI, 0.34 to 0.83]; $P = 0.005$) and 63% fewer visits after 1 year (IRR, 0.37 [CI, 0.22 to 0.64]; $P < 0.001$) compared with patients who did not receive naloxone. There was no net change over time in opioid dose among those who received naloxone and those who did not (IRR, 1.03 [CI, 0.91 to 1.27]; $P = 0.61$).

Limitation: Results are observational and may not be generalizable beyond safety-net settings.

Conclusion: Naloxone can be coprescribed to primary care patients prescribed opioids for pain. When advised to offer naloxone to all patients receiving opioids, providers may prioritize those with established risk factors. Providing naloxone in primary care settings may have ancillary benefits, such as reducing opioid-related adverse events.

Primary Funding Source: National Institutes of Health.

Ann Intern Med. 2016;165:245-252. doi:10.7326/M15-2771 **www.annals.org**

For author affiliations, see end of text.

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46% fewer opioid related ED visits per month first 6 months

63% fewer opioid related ED visits per month after 12 months

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Summary

To prevent Hepatitis C, treat addiction and emphasize harm reduction

Methadone and buprenorphine use are significantly associated with decreased risk of HIV/Hep C infection

Extended release naltrexone treats opioid use disorder. It is unclear if it also decreases risk of new infections

Don’t forget to prescribe naloxone

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OHSU
Thank You

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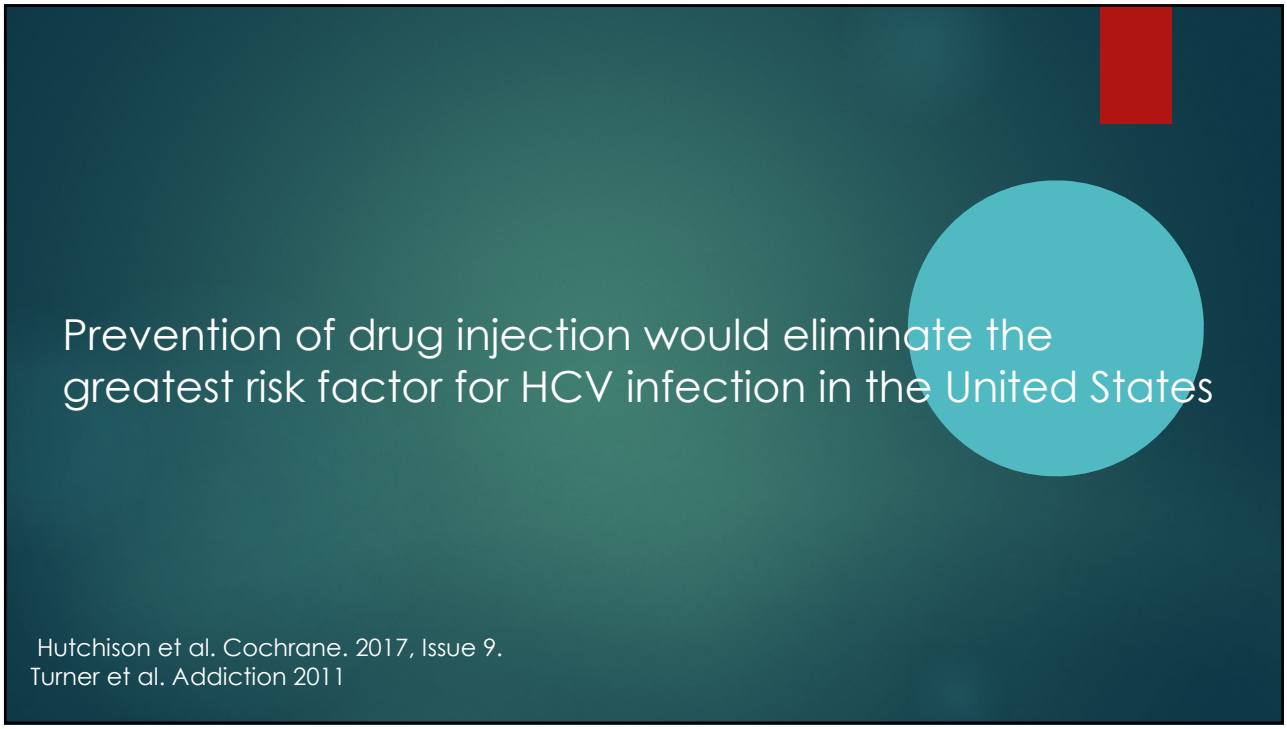
Prevention of drug injection would eliminate the greatest risk factor for HCV infection in the United States
Hutchison et al. Cochrane. 2017, Issue 9.
Turner et al. Addiction 2011

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