

WHEN TO CONSIDER STOPPING BUPRENORPHINE

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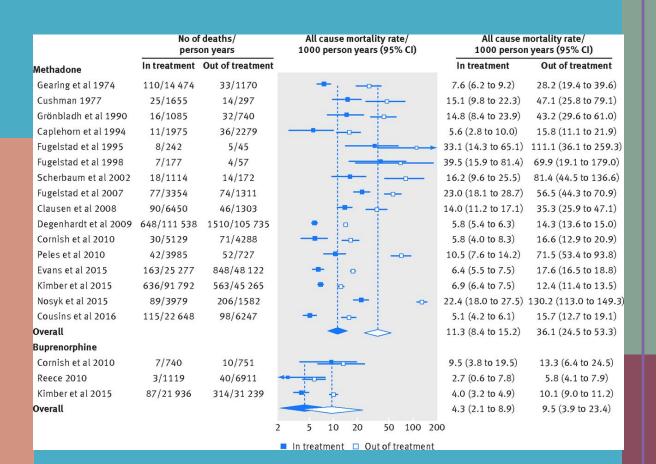




The risk? Death.

Sordo, et al, 2017 compiled this metanalysis on mortality for methadone and buprenorphine in and out of treatment.

The results are fairly straightforward





ALL CAUSE

"all cause mortality rates in the three buprenorphine cohorts were 4.3 and 9.5 deaths—2x per 1000 person years in and out of treatment"

"pooled all cause mortality rates were 11.3 and 36.1 deaths per 1000 person years in and out of_{3x} methadone treatment, respectively"



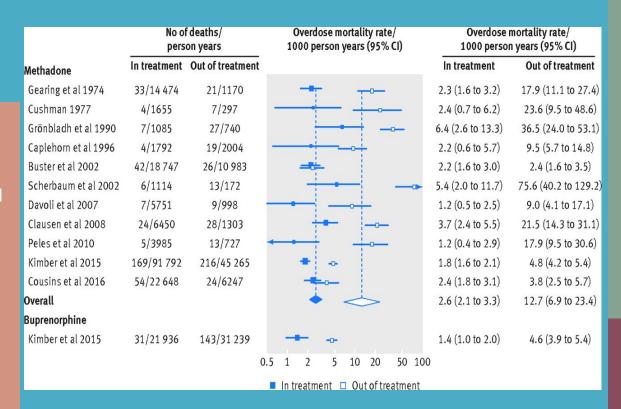
Why are these numbers so different?



What about overdose mortality?

"In the single buprenorphine cohort there were 1.4 and 4.6 fatal overdoses per 1000 person years in and out of treatment"

"...pooled overdose mortality rates varied between 2.4 and 2.8 fatal overdoses per 1000 person years in methadone treatment and between 10.6 and 14.9 fatal overdoses per 1000 person years out of treatment."







All cause mortality:

- Buprenorphine: ~2x the all cause mortality per 1000 people years.
- Methadone: ~3x more all cause mortality per 1000 people years.

Overdose mortality:

- Buprenorphine: ~4x more likely to die of overdose.
- Methadone: ~5x more likely to die of overdose

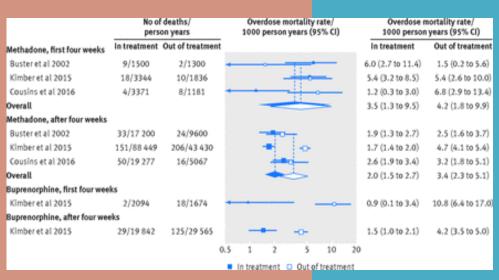


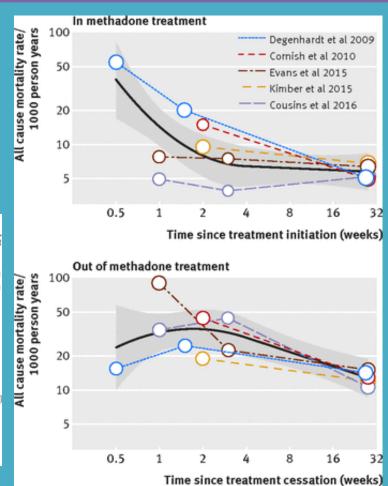




When do people die?

Where is the bupe?





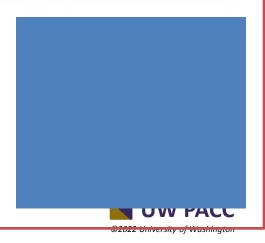


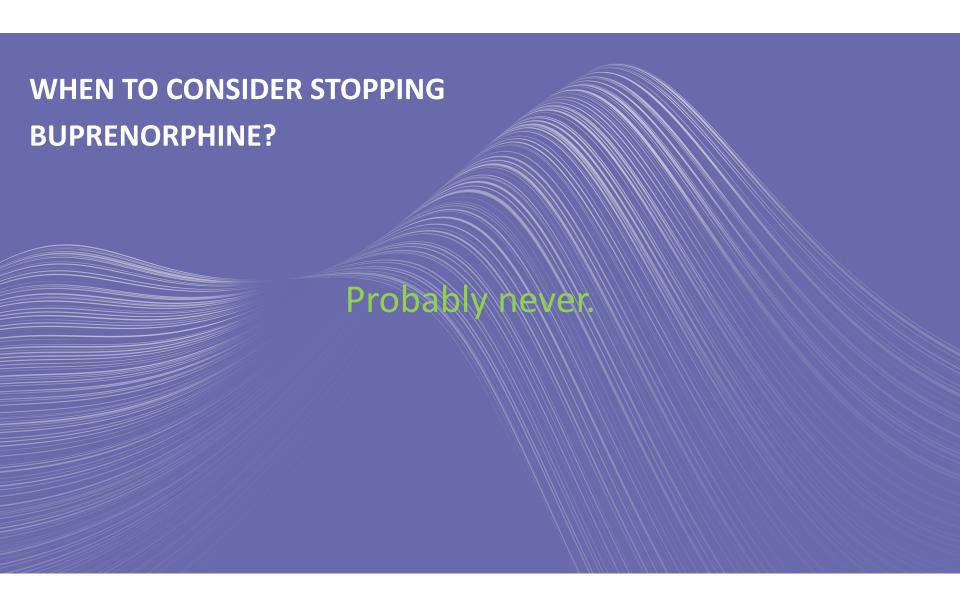
WHAT ABOUT OTHER RESEARCH? Notably, Santo et al, June 2021 meta-analysis in JAMA.

- 749,634 total patients analyzed
- All cause mortality halved independent of location, age, sex, HIV status and IVDU.
- Bupe (much) safer in induction period.
- All cause mortality 6x higher after cessation in the first 4 weeks and double the rate afterwards.
- Reduction in death by suicide, EtOH, other drugs, cancer and CV related etiologies.









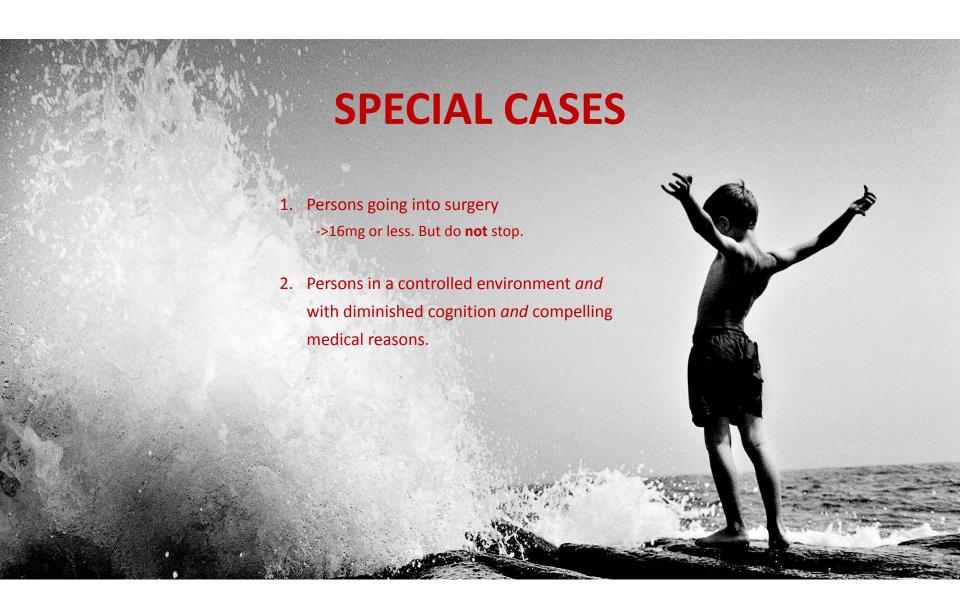




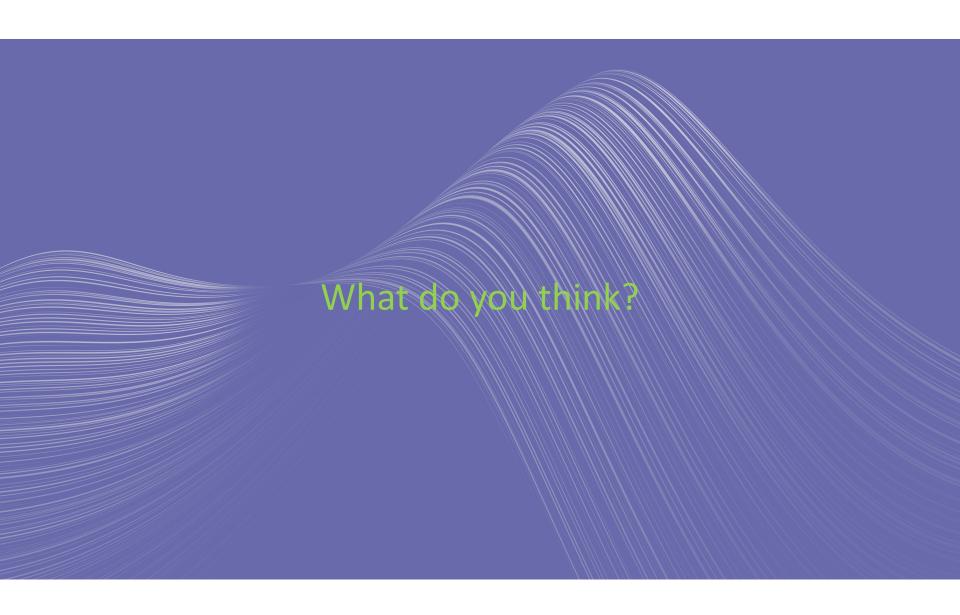














CITATIONS

- 1. August 21 JHM 2019 O 635 P online first, 2019 | 10.12788/Jhm.3265. Things We Do for No Reason™: Discontinuing Buprenorphine When Treating Acute Pain. *J Hosp Med*. 2019;14(10). doi:10.12788/jhm.3265
- 2. Hickman M, Steer C, Tilling K, et al. The impact of buprenorphine and methadone on mortality: a primary care cohort study in the United Kingdom. *Addict Abingdon Engl.* 2018;113(8):1461-1476. doi:10.1111/add.14188
- 3. Kimber J, Larney S, Hickman M, Randall D, Degenhardt L. Mortality risk of opioid substitution therapy with methadone versus buprenorphine: a retrospective cohort study. *Lancet Psychiatry*. 2015;2(10):901-908. doi:10.1016/S2215-0366(15)00366-1
- 4. Marteau D, McDonald R, Patel K. The relative risk of fatal poisoning by methadone or buprenorphine within the wider population of England and Wales. *BMJ Open.* 2015;5(5):e007629. doi:10.1136/bmjopen-2015-007629
- 5. Kornfeld H, Manfredi L. Effectiveness of Full Agonist Opioids in Patients Stabilized on Buprenorphine Undergoing Major Surgery: A Case Series. *Am J Ther*. 2010;17(5):523-528. doi:10.1097/MJT.0b013e3181be0804
- 6. Sordo L, Barrio G, Bravo MJ, et al. Mortality risk during and after opioid substitution treatment: systematic review and meta-analysis of cohort studies. *BMJ*. 2017;357:j1550. doi:10.1136/bmj.j1550
- 7. Santo T Jr, Clark B, Hickman M, et al. Association of Opioid Agonist Treatment With All-Cause Mortality and Specific Causes of Death Among People With Opioid Dependence: A Systematic Review and Meta-analysis. *JAMA Psychiatry*. 2021;78(9):979-993. doi:10.1001/jamapsychiatry.2021.0976
- 8. Veazie S, Mackey K, Peterson K, Bourne D. Managing Acute Pain in Patients Taking Medication for Opioid Use Disorder: a Rapid Review. *J Gen Intern Med.* 2020;35(Suppl 3):945-953. doi:10.1007/s11606-020-06256-5
- 9. Larochelle MR, Bernson D, Land T, et al. Medication for Opioid Use Disorder After Nonfatal Opioid Overdose and Association With Mortality: A Cohort Study. *Ann Intern Med.* 2018;169(3):137-145. doi:10.7326/M17-3107
- 10. Gowing L, Ali R, White JM. Buprenorphine for the management of opioid withdrawal. *Cochrane Database Syst Rev.* 2009;(3):CD002025. doi:10.1002/14651858.CD002025.pub4
- 11. Scherbaum N, Specka M, Hauptmann G, Gastpar M. [Does maintenance treatment reduce the mortality rate of opioid addicts?]. *Fortschr Neurol Psychiatr*. 2002;70(9):455-461. doi:10.1055/s-2002-33758



