

# Opioid agonist treatment and risk of death or rehospitalisation following injection drug use-associated bacterial and fungal infections

Thomas D. Brothers<sup>1,2,3</sup>, Dan Lewer<sup>1,2</sup>, Nicola Jones<sup>1</sup>, Samantha Colledge<sup>1</sup>, Michael Farrell<sup>1</sup>, Matthew Hickman<sup>4</sup>, Duncan Webster<sup>3</sup>, Andrew Hayward<sup>2</sup>, Louisa Degenhardt<sup>1</sup>

(1) NDARC, UNSW. (2) Collaborative Centre for Inclusion health, UCL. (3) Department of Medicine, Dalhousie. (4) Population Health Sciences, University of Bristol.



# UCL

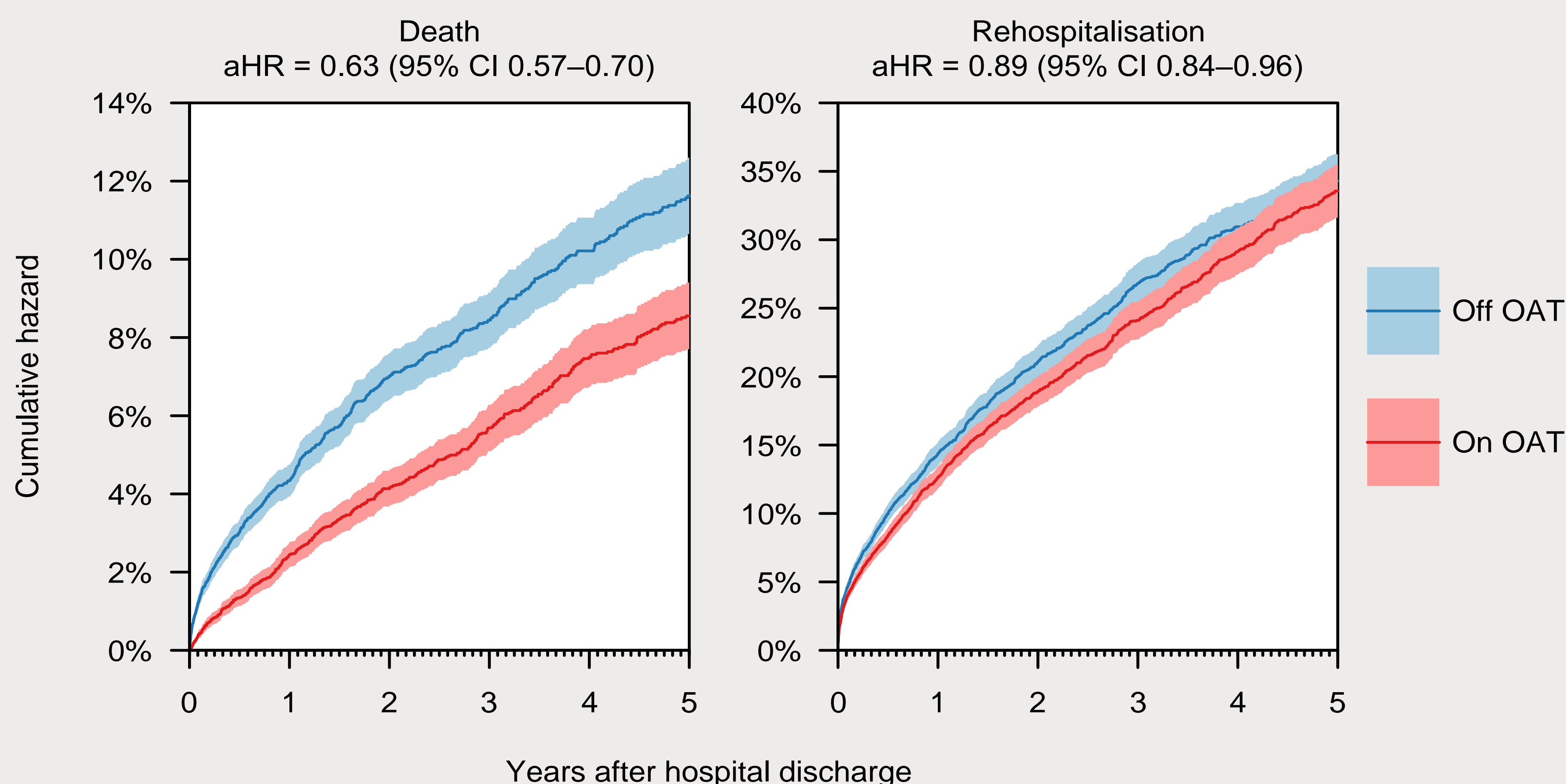
**Research question:** Is opioid agonist treatment (methadone or buprenorphine) associated with reduced death and reinfection after injecting-related infections?

**Sample:** 8,943 people with severe injecting-related infections in New South Wales, Australia. This was defined as patients admitted to hospital with a skin or soft tissue infection (79% of patients) or an invasive infection (21% of patients), and at least one prior episode of opioid agonist treatment. Mean age at admission was 39 (sd. 11); 34% were women.

**Exposure:** Opioid agonist treatment after discharge (time-varying).

**Outcomes:** (1) All-cause death; (2) Reshospitalisation with an injecting-related infection.

**Analysis:** Survival analysis, with adjustment for age, sex, Aboriginal or Torres Strait Islander status, comorbidity at time of admission, prior incarceration, and prior records of stimulant use.



**Figure:** Extended Kaplan–Meier curves for time to death and time to rehospitalisation among participants in the OATS study who survived an initial hospitalization with injecting-related bacterial or fungal infection

**Results:** 4,292 (48%) were receiving OAT at the time of discharge. During median 6.5 years follow-up, 1,481 patients died and opioid agonist treatment was associated with a large reduction in risk. During median 3.4 years follow-up, 3,653 were re-hospitalised and opioid agonist therapy was associated with a small reduction in risk.

**Conclusion:** Opioid agonist therapy should be considered as part of a multicomponent treatment strategy for injecting-related infections, aiming to reduce death and reinfection.