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

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Introduction and Aims: Mortality among people with opioid dependence is higher than that of the general population and is a global health burden. We aimed to estimate the association between time receiving OAT on all-cause and cause-specific mortality. We also examine risk during specific time periods of treatment, by setting (community and incarceration), and by participant characteristics.

Design and Methods: We searched Embase, MEDLINE, and PsycINFO for observational studies that collected data on all-cause or cause-specific mortality among people with opioid dependence in and out-of-OAT were included. Crude mortality rates and rate ratios (RRs) were pooled using random-effects meta-analyses.

Key Findings: 36 primary cohort studies, N=749,634. Cohort studies found all-cause mortality during OAT more than halved compared to time out-of-OAT (RR=0.47; 95%CI 0.42-0.53). This relationship was consistent by gender, age, location, HIV, or HCV status, and people who inject. Associations were not different for methadone (RR=0.47; 95%CI 0.41-0.54) versus buprenorphine (RR=0.34; 95%CI 0.26-0.45). There was lower risk of drug-related, suicide, alcohol-related, cancer, and cardiovascular mortality while receiving OAT. Risk of all-cause mortality was six-times higher in the four weeks following OAT cessation, remaining double the rate for the remainder of time out-of-OAT. OAT is strongly associated with a lower risk of mortality when incarcerated and after release from incarceration.

Discussions and Conclusions: We found that OAT was associated with a reduction in multiple causes of death. However, access to OAT remains limited, and coverage remains low. Work to improve access globally may have important population-level benefits.

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