

## **The incidence of injecting-related diseases among people prescribed opioid agonist treatment in New South Wales: a retrospective data linkage study using hospital administration data**

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**Introduction:** Non-viral bacterial, fungal, and venous diseases are prevalent among people who inject drugs (PWID) (1). As opioid agonist treatment (OAT) has demonstrated to reduce the frequency of injecting among clients (2), the incidence of injecting-related diseases may also reduce in treatment. We conducted a retrospective cohort study using linked administrative health data to determine the incidence rate of injecting-related hospital separations in and out of OAT.

**Method:** The cohort included patients entering OAT in New South Wales between August 2001 and December 2017. The data resource included treatment, hospital, mental health, and custodial information. Crude and adjusted incidence rates, and adjusted rate ratios, were calculated by treatment status (in treatment [1-4 weeks], in treatment [4 weeks+], and out of treatment).

**Results:** There were over 47,000 participants in the cohort, and one in four recorded a hospital stay for an injecting-related disease. Most diagnoses were for a skin or soft tissue infection. Retention in treatment (4 weeks+) was associated with reduced incidence of skin and soft tissue infections, endocarditis, sepsis, and septic arthritis, compared to time out of treatment. There was an increased risk of incidence in the first four weeks of treatment for nearly all the injecting-related diseases.

**Discussion:** Bacterial and fungal infections can be immediately life threatening and often require long-term hospital stays to complete treatment. Our findings suggest that OAT may be an effective strategy in reducing the incidence of these diseases among opioid dependent PWID.

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