

REDUCING INJECTING FREQUENCY PREVENTS HOSPITALISATIONS WITH INJECTING-RELATED INFECTIONS: AN EMULATED TARGET TRIAL

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Introduction

Despite the growing burden of injecting-related bacterial infections, there is very little empirical evidence identifying the potential impact of modifiable behavioural risk factors.

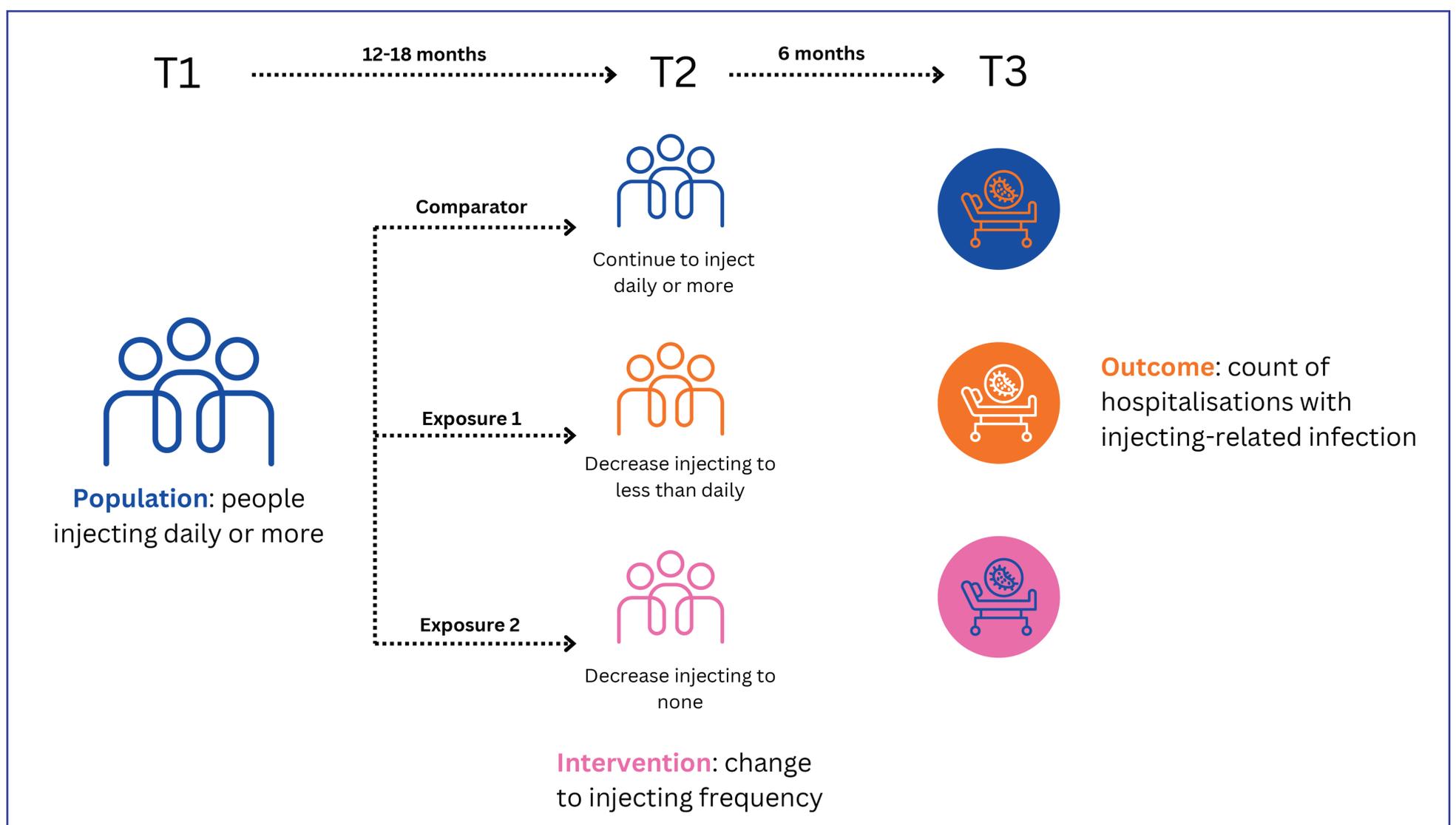
This study determined the causal effect of reduced injecting frequency on injecting-related bacterial infections.

Methods

In an emulated target trial, we used data from a cohort of people who inject drugs in Melbourne, Australia (SuperMIX). Survey data were linked to statewide hospital admissions and emergency department presentations (2008-2019). See Figure 1 for trial design.

Inverse probability weighting was used to balance the exposure groups on confounding variables. The causal effect measure was the difference in count of hospitalisations for injecting-related infections within a 6-month period.

Figure 1: Trial Design



Results

690 participant-surveys contributed to the analysis. 105 participant-surveys contributed to exposure group 1, 294 contributed to exposure group 2, and 291 contributed to the comparator group. 52 hospitalisations occurred within the 6-month observation period, 35 of which were among the comparator group.

We detected a mean difference of -0.077 and -0.076 events for exposure groups 1 and 2, respectively, compared to the comparator group. Indicating that, **for every 100 people who reduced their injecting, there were approximately 8 fewer hospitalisations with injecting-related infections in a 6-month period.**

Discussion and Implications

This is the first study measuring the causal impact of injecting frequency on injecting-related infections. Interventions that reduce injecting to less than daily could see substantial healthcare savings and improvements to health for people who inject drugs. We did not identify additional benefits to injecting-related infection prevention with injecting cessation.