

PREVALENCE OF *STAPHYLOCOCCUS AUREUS* AND *STREPTOCOCCUS PYOGENES* COLONISATION AMONG PEOPLE WHO INJECT DRUGS IN MELBOURNE, AUSTRALIA

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Background:

Colonisation with *Staphylococcus aureus* and *Streptococcus pyogenes* increases the risk of invasive infections. There are scant data about the epidemiology of colonisation with these pathogens amongst people who inject drugs in Australia. We sought to determine the prevalence of *S. aureus* and *S. pyogenes* colonisation amongst people who inject drugs in Melbourne.

Methods:

We conducted a community-based cross-sectional survey of people who inject drugs in Melbourne, Australia, nested within the Melbourne Injecting Drug User Cohort (SuperMIX) Study – a prospective longitudinal cohort, running since 2008. SuperMIX participants aged ≥ 18 years who reported injecting drug use within the previous six months were eligible. Participants were recruited by field workers between June 2022 and March 2023 and self-collected two swabs: a combined throat-nasal swab and an axilla swab. Swabs were cultured on selective media for *S. aureus* and *S. pyogenes*, with methicillin-resistant *S. aureus* (MRSA) isolates presumptively identified by oxacillin screening agar.

Results:

We recruited 268 participants. One-hundred and six participants (39.6%) were colonised with *S. aureus*, with colonisation detected in 50% (53/106) by throat-nasal swab alone, 17.9% (19/106) by axillae swab alone, and in 32.1% (34/106) by both swabs. Of the 258 participants screened for resistance, six (2.3%) were colonised with MRSA. All MRSA colonisation was detected from throat-nasal swabs. Of the 268 participants, three (1.1%) were colonised by *S. pyogenes*, all detected on throat-nasal swabs.

Conclusion:

The prevalence of *S. aureus* colonisation amongst people who inject drugs in Melbourne, Australia, is higher than expected compared to the general population. Further research could explore transmission dynamics, and the effectiveness of interventions such as *S. aureus* decolonisation to reduce the risk of invasive infections in this population.

Disclosure of Interest Statement:

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