

OPTIMISING CARE FOR PEOPLE WHO INJECT DRUGS: A RETROSPECTIVE MEDICAL RECORD REVIEW OF *STAPHYLOCOCCUS AUREUS* BACTERAEMIA TREATMENT

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Introduction and Aims: People who inject drugs (PWID) are at increased risk of *Staphylococcus Aureus* Bacteraemia (SAB) infection with serious, long term consequences if inadequately treated. Recommended treatment includes minimum 14 days intravenous (IV) antibiotics. This may be disrupted by discharge against medical advice (DAMA). PWID are at increased risk of DAMA; however, rates of DAMA and SAB treatment completion are unknown. We aimed to determine the proportions of treatment completion, DAMA rates and social/demographic determinants among PWID and non-PWID with SAB infection.

Design and Methods: Retrospective medical records analysis of inpatients at an Australian tertiary hospital with positive SAB blood cultures (June/2015-September/2018). Participants with first presentation of SAB were included; allocated to either the PWID group (clinician documented IV drug use) or non-PWID group.

Results: One-hundred seventy-two unique records were identified. Compared to non-PWID, PWID were more likely to be younger: mean age 44 years, standard deviation (SD) 8.9 years versus 66 years (SD 19) ($p < 0.001$); homeless: 14% versus 0% ($p < 0.001$); Aboriginal or Torres Strait Islander: 27% versus 4% ($p < 0.001$); have psychiatric co-morbidities: 50% versus 24% ($p < 0.001$); and no private health insurance: 96% versus 45% ($p < 0.001$).

DAMA occurred in 33% of PWID compared with no (0%) non-PWID ($p < 0.001$); 31% within 7 days and 69% within 14 days of admission. Representation of PWID to hospital within 1 year was higher after DAMA; 81% versus 39% ($p = 0.009$).

Discussions and Conclusions: PWID admitted with SAB infection are significantly more likely to DAMA potentially leading to unfinished treatment and serious sequelae. PWID have complex medical requirements complicated by social inequality.

Implications for Practice or Policy: The disparity in DAMA rates for PWID with SAB highlights the need for a specific health service response, as they are more likely to be vulnerable across various social domains.

Implications for Translational Research: The establishment of DAMA rate provides a useful baseline indicator with which to assess interventions aimed at improving treatment outcomes for PWID.

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