Outcomes for clients in opioid treatment programs (otp) who use amphetamine type substances (ats): results from a retrospective analysis of routinely-collected clinical data

LLEWELLYN MILLS^{1,2,3}, KRISTIE MAMMEN¹, RACHEL M. DEACON^{1,2}, EMMA BLACK^{1,2,3}, MARK MONTEBELLO^{2,3,4,5}, RAIMONDO BRUNO^{3,6}, ADRIAN J. DUNLOP^{5,7,8}, NADINE EZARD^{3,9,10}, ANTHONY SHAKESHAFT³, MICHAEL FARRELL³, JENNIFER HOLMES¹¹, DAVID REID^{5,12}, STEVEN CHILDS^{5,13}, KRISTA J. SIEFRIED^{3,9,10} AND NICHOLAS LINTZERIS^{1,2,5}

¹ Drug and Alcohol (D&A) Services, South Eastern Sydney Local Health District (LHD), Sydney, Australia, ² Specialty of Addiction Medicine, Sydney University, Sydney, Australia, ³ National Drug and Alcohol Research Centre, University of NSW, Sydney, Australia, ⁴ D&A Services, North Sydney LHD, ⁵ NSW Drug and Alcohol Clinical Research and Improvement Network (DACRIN) ⁶ School of Medicine, University of Tasmania, Hobart, Australia ⁷ D&A Clinical Services, Hunter New England LHD, Newcastle, Australia, ⁸ School of Medicine and Public Health, University of Newcastle, Newcastle, Australia, ⁹ Alcohol and Drug Service, St Vincent's Hospital Sydney, Australia, ¹⁰ National Centre for Clinical Research on Emerging Drugs, Sydney, Australia, ¹¹ Centre for Population Health, NSW Ministry of Health, Sydney, Australia, Sydney, Australia, ¹² D&A Services, Illawarra and Shoalhaven LHD, Wollongong, Australia, ¹³ D&A Services, Central Coast LHD, Gosford, Australia,

Presenter's email: <<u>Llewellyn.Mills@health.nsw.gov.au></u>

Introduction and Aims:

ATS use while on OTP is associated with earlier treatment dropout, more frequent heroin use and poorer psychological health. However, to what extent ATS use at the beginning of treatment affects change in treatment outcomes over time has yet to be examined.

Design and Methods:

Routinely-collected clinical outcomes data from OTPs in six local health districts between 2016-2019 (N=920) was extracted from electronic medical records and analysed, using longitudinal mixed-effects regressions to test whether frequency of ATS use at treatment commencement was associated with different rates of change in substance use, health, and wellbeing.

Key Findings:

Clients who use ATS frequently (\geq 13 days in the past 28) at treatment entry were also using opioids (estimate=2.3 days per 28-day period, 95%CI: 1.1, 3.5) and cannabis (estimate=2.3, CI: 0.8, 3.8) on significantly more days and had poorer psychological health (estimate=-1.0 on 0-10 response scale, CI: -1.6, -0.3) and quality of life (estimate=-0.5, CI: -0.8, -0.2) than clients who used no ATS. However, their use of these substances reduced and psychological health and quality of life improved over the first year of treatment, until, at 12 months, levels of these variables were not significantly different than those with no ATS use at start of treatment.

Discussions and Conclusions:

Although OTP clients who are using ATS at the start of treatment tend to have more concurrent substance use and poorer psychological health and quality of life, providing they remain in treatment, their prognosis is similar to those who used no ATS at treatment entry.

Implications for Translational Research

Findings suggest OTP leads to improvements across multiple important clinical outcomes, not just heroin use and that there may be value in taking extra steps to encourage retention

among ATS-using OTP clients. These findings were obtained from real-world clients and hence could be translated rapidly into practice.

Disclosure of Interest Statement:

Two of the investigators (KJS and NE) work for the National Centre for Clinical Research on Emerging Drugs (NCCRED), the organisation funding the study. Investigators AD and NL sit on the board of NCCRED and investigators AS and MF are employees of the National Drug and Alcohol Research Centre (NDARC, UNSW) which is a member of the NCCRED consortium group. NL has received funding from Camurus and Indivior for unrelated research.

NCCRED was funded by the Commonwealth Department of Health to support the provision of clinical treatment interventions to people experiencing problems related to their use of methamphetamine and other emerging drugs of concern. The funding for this project is from a seed-funding grant (unrestricted). None of the authors were involved in the decision to fund the project. Funding allocation was through an open competitive process with an independent peer review panel.