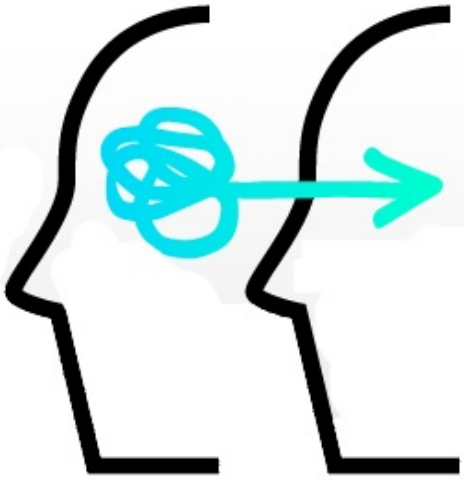
NCCRED

National Centre for Clinical Research on Emerging Drugs



Symposium 2020

Innovations in therapeutic practice

20 November, 2020

NCCRED Annual Symposium: Innovations in therapeutic practice

11:00am	**Opening** **Ingrid van Beek** Chair, NCCRED Conjoint Professor, Kirby Institute, University of New South Wales Hon Research Associate, South Eastern Sydney Local Health District (SESLHD)
11:05am	**Acknowledgement of country** **Wayne Williams** Coordinator Indigenous Health Curriculum, The University of Queensland Rural Clinical School
11:10am	**Welcome and Introduction** **Nadine Ezard** Director, NCCRED Clinical Director, Alcohol and Drug Service, St Vincent's Hospital Sydney
	International Guest Presenter
11:20am	**CTN-0110 (MURB): A Randomized, placebo-controlled trial of monthly injectable buprenorphine for methamphetamine use disorder with occurring opioid use.** **David Goodman-Meza** Assistant Professor, Division of Infectious Diseases, David Geffen School of Medicine at University of California, Los Angeles, USA
SESSION 1	**Methamphetamine use disorder: pharmacotherapies** **Chair: Anthony Schembri** NCCRED Consortium & Board member, Chief Executive Officer, St Vincent's Health Network Sydney
11:35am	**An Open-Label Pilot Study of Subanaesthetic Ketamine for Stimulant Use Disorder - Methamphetamine Type in Youth** **Edward Mullen** NCCRED Research Fellow, Consultant Psychiatrist, Hype and Substance Use Research Group and Early Intervention Clinic, Orygen pg 7
11:45am	**Lisdexamfetamine for the management of acute methamphetamine withdrawal: Protocol for an open-label safety and feasibility study** **Liam Acheson** PhD Candidate, National Drug and Alcohol Research Centre (NDARC), University of New South Wales, Research Officer, Alcohol & Drug Service, St Vincent's Health Sydney pg 8
11:55am	**Discussant** **Robert Ali** Chair, NCCRED Methamphetamine and Emerging Drugs Clinical Research Network Working Group, Clinical Associate Professor in the Discipline of Pharmacology at the University of Adelaide

SESSION 2	**Methamphetamine use disorder: psychosocial interventions** **Chair: Ann Roche** NCCRED Consortium & Board member, Director, National Centre for Education and Training on Addiction, Flinders University
12:05pm	**Methamphetamine and mutual support: A mixed methods exploration of SMART Recovery participants' characteristics and opportunities for enhanced referral pathways** **Alison Beck** Trial Coordinator, Clinical Psychologist, School of Psychology, University of Wollongong pg 9
12:15pm	**The methamphetamine approach-avoidance training (MAAT) trial: A randomised controlled trial of personalised approach bias modification for methamphetamine use** **Victoria Manning** Head of Research and Workforce Development, Turning Point, Eastern Health, Associate Professor of Addiction Studies, Monash University pg 10
12:25pm	**Collaborative development of a clinician-administered checklist to facilitate retention and therapeutic engagement in substance use treatment** **Adam Rubenis** NCCRED Research Fellow, Psychologist, Statewide Clinical Services, Turning Point (Eastern Health) pg 11
12:35pm	**An acceptability and feasibility study of the We Can Do This online therapeutic program in primary care and residential rehabilitation settings** **Rachel Reilly** Senior Research Fellow, Novel Interventions to Address Methamphetamine Use in Aboriginal and Torres Strait Islander Communities (NIMAC), Infection and Immunity Aboriginal Health, South Australian Health and Medical Research Institute (SAHMRI) pg 12
12:45pm	**Discussant** **Annalee Stearne** Chair, NCCRED Aboriginal and Torres Strait Islander Working Group, Board member, NCCRED Research Associate/ PhD Candidate, National Drug Research Institute
BREAK 12:50-1:20	

SESSION 3	**Methamphetamine use disorder: using data for improved outcomes** **Chair: Michael Farrell** NCCRED Consortium & Board member, Director, National Drug and Alcohol Research Centre, UNSW
1:25pm	**Developing a clinical data laboratory for methamphetamine use in NSW: The MAData project** **Emma Black** Senior Project Officer, Drug and Alcohol Services, South Eastern Sydney Local Health District, The Langton Centre pg 13
1:35pm	**Impact of Amphetamine Type Stimulant Use on Clinical Outcomes in OTP Clients** **Llewellyn Mills** Honorary Research Fellow, Central Clinical School, Faculty of Medicine The University of Sydney & South Eastern Sydney Local Health District, The Langton Centre pg 15
1:45pm	**Clinical outcomes and measures used in randomised controlled trials examining pharmacotherapy for methamphetamine dependence** **Krista Siefried** Deputy Director & Clinical Research Lead, National Centre for Clinical Research on Emerging Drugs (NCCRED) pg 16
1:55pm	**Discussant** **Robert Stirling** Board member, NCCRED Chief Executive Officer, Network of Alcohol and Other Drugs Agencies
SESSION 4	**Emerging drugs of concern: signal detection for prompt response** **Chair: Simon Lenton** NCCRED Consortium & Board member, Director, National Drug Research Institute, Curtin University
2:05pm	**Conclusion of the South Australian Drug Early Warning System - Emergency Department Admission Blood Psychoactive Testing (EDABPT) Study** **Peter Stockham** Principal Forensic Scientist, Toxicology, Forensic Science SA pg 17
2:15pm	**"Brevity of data will take precedence": evolution of a national minimum dataset of illicit and emerging drugs in the emergency department** **Jennifer Smith** Research Project Officer, Centre for Clinical Research in Emergency Medicine, Royal Perth Hospital pg 18
2:25pm	**The implementation of the Recreational Drug Intoxication Protocol** **Andrew Kozman** NCCRED Research Fellow, Emergency Consultant, Fiona Stanley Hospital pg 19
2:35pm	**Feasibility, consumer acceptability and behavioural outcomes associated with take-home fentanyl test strips** **Rachel Sutherland** Research Fellow, National Drug and Alcohol Research Centre, University of New South Wales pg 20
2:45pm	**Discussant** **Jack Nagle** Founder of Realdrugtalk, Member NCCRED Methamphetamine and Emerging Drugs Clinical Research Network Working Group
Close and Thankyou - Nadine Ezard	

Foreword

Welcome to the National Centre for Clinical Research on Emerging Drugs' (NCCRED) 2020 Symposium.

Thank you for coming to NCCRED's second symposium in what has been an extraordinary year. We're so pleased you're joining us, albeit remotely, for what remains a critical and timely activity: to gather, share knowledge, and recognise the inherent social value of our pursuit. Clinical research is not an abstract notion. It's about people, with people and for people; and it's our shared values, knowledge and understanding that determines how we carry this research out and to what end.

Putting together this year's program it was heartening to see an important theme emerge, one that reflects NCCRED's core aims, strategies and ultimately our research priorities: ***Innovations in therapeutic practice.***

Established as part of the Australian Government's National Ice Action Strategy in 2017, NCCRED recognises the need for improved treatments for methamphetamine, as well as more prompt detection and response to emerging drug harms. Ultimately NCCRED aims to support clinicians to detect and respond to new drug health problems by developing innovative and evidence-based treatments for drug dependence; build clinical research capacity in the Australian Alcohol and other Drug (AOD) workforce; and rapidly translate research findings into best clinical practice.

In the context of this pursuit, NCCRED's annual symposium is a vital component in developing the best clinical pathways to address complex health challenges associated with changing patterns of substance use and harm in Australia.

I would like to thank the Board and Chair, as well as all our partners and collaborators including our colleagues in the PRN. In particular we would like to recognise the important contribution of the WG and the Chair of the WG in stewarding NCCRED's research priority setting process and awarding the research funding results, as well as the NCCRED Clinical Research fellows and the researchers, whose work will be showcased in this symposium.

Thank you especially to our consortium partners for their continued support: National Drug and Alcohol Research Centre (NDARC) UNSW, St Vincent's Health Australia (SVHA), the National Drug Research Institute (NDRI) and the National Centre for Education and Training on Addiction (NCETA).

Again, welcome. We hope you enjoy NCCRED's 2020 Symposium.

Prof Nadine Ezard,
Director National Centre for Clinical Research on Emerging Drugs

International Guest Presenter

David Goodman-Meza

David Goodman-Meza, MD, MAS, is an Assistant Professor in the Division of Infectious Diseases at the David Geffen School of Medicine at University of California, Los Angeles, USA. Dr. Goodman-Meza is a Mexican-American physician-scientist. He completed his medical degree with honours at Universidad Autonoma de Baja California in Tijuana, Mexico. He received his master's degree in clinical research at UCSD and participated in a NIDA T32 post-doctoral training program at UCSD's Division of Global Public Health mentored by Steffanie Strathdee and Thomas Patterson. He moved to New York to complete his internal medicine residency at Albert Einstein College of Medicine/Jacobi Medical Center. He completed his fellowship in Infectious Diseases at UCLA, where he was mentored by Steve Shoptaw.

Dr. Goodman-Meza's research is focused on the relationship of substance use disorders and infectious diseases, and the impact of substance use disorders treatment on infectious diseases treatment and prevention outcomes. He is currently a recipient of an NIDA K08 Career Development Award where he is training in the use of natural language processing and machine learning to evaluate outcomes of people who inject drugs who are admitted due to Staphylococcus aureus bacteremia. He is also the Los Angeles principal investigator on a NIDA Clinical Trials network study evaluating buprenorphine for treatment of methamphetamine use disorder and a HPTN study evaluation the use of mobile units and navigation for treatment of opioid use disorder.

Session 1: Methamphetamine use disorder: pharmacotherapies
Session Chair: Anthony Schembri

An Open-Label Pilot Study of Subanaesthetic Ketamine for Stimulant Use Disorder - Methamphetamine Type in Youth

Edward Mullen[1,2,3], Alex Guerin[1,4], Emily Karanges[1,4], Amelia Lopatecki[1,4], Orli Schwartz[1,4], Shalini Arunogiri[5], Colleen Loo[6], Andrew Chanen[1,4], Enrico Cementon[1], Aswin Ratheesh[1,4], Chris Davey[1,4], Gillinder Bedi[1,4]

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Introduction
Methamphetamine (MA) use is associated with several adverse outcomes. Early treatment may reduce impacts of MA use on normative developmental trajectories, improving overall outcomes. There are currently no approved pharmacotherapies for Stimulant Use Disorder - Methamphetamine type (SUD-MA). Psychological treatments are effective but have high relapse rates. Novel treatments are needed, particularly for youth where intervention may be most impactful. Initial studies suggest that modulating the glutamatergic system using ketamine may reduce drug use in SUDs.

Method
MASKOT (Methamphetamine use in young people: Sub-anaesthetic Ketamine Open-label Trial) is an open-label Phase II pilot study with the primary objective of assessing the safety and tolerability of two doses of SC ketamine separated by 7 days in young people with SUD-MA to reduce their MA use. Secondary objectives are to assess initial efficacy on MA use and cravings, and psychiatric and functional outcomes.

Key Findings
Although ketamine is being actively investigated in other SUDs, this study will be the first internationally to assess the safety and tolerability of ketamine for SUD-MA. Progress has been hampered by COVID-19 restrictions in Victoria with an anticipated start date in December 2020.

Discussions and Conclusions:
This study will provide empirical evidence on safety and tolerability of this treatment approach. If safe and efficacious, subcutaneous ketamine could be a pragmatic and affordable option for SUD-MA. Data will be used to apply for funding for a Phase 3 RCT to conclusively assess the efficacy of ketamine for SUD-MA in youth.

Disclosure of Interest Statement:
The funding for this study and for EM's research fellowship has been provided by the National Centre for Clinical Research on Emerging Drugs (NCCRED). The authors have no conflicts to declare.

Lisdexamfetamine for the management of acute methamphetamine withdrawal: Protocol for an open-label safety and feasibility study

Liam S Acheson [1,2], Nadine Ezard [2,3], Rebecca Mcketin [1], Michael Farrell [1], Krista J Siefried [2,3] On Behalf Of The Olam Study Team

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Introduction and Aims:
Abrupt cessation of methamphetamine (MA) produces withdrawal symptoms, however, no pharmacotherapy for the management of acute MA withdrawal exists. While there is limited data on an agonist-type pharmacotherapy available, lisdexamfetamine (LDX) is a promising candidate medication. The primary objective of this study is to determine the safety and feasibility of a tapering dose regimen of LDX for MA withdrawal.

Design and Methods:
Open-label, single-arm, pilot clinical trial. Fifteen participants presenting for acute inpatient withdrawal management will be recruited. Participants will receive a tapering dose regimen of LDX: 250mg Day 1 reducing by 50mg per day to 50mg on Day 5. Participants will be encouraged to remain as inpatient? for Days 6 and 7 to monitor for adverse events and withdrawal symptoms post-taper., Participants will be followed up post-discharge on Days 14, 21 and 28 to monitor for adverse events.

Results: The primary outcome of this study is safety and feasibility as measured by number and severity of adverse events, and time taken to enrol the sample. Secondary outcomes are acceptability, retention, efficacy and effects on sleep.

Discussions and Conclusions:
This will be the first study to investigate LDX for the management of acute MA withdrawal. If LDX is a safe and feasible treatment, results from this study will be used to develop a fully powered RCT to investigate the efficacy of LDX. There is currently no evidence-based treatment for MA withdrawal, and if effective, LDX may become the first medication for the management of MA withdrawal.

Disclosure of Interest Statement:
KJS has received travel sponsorship from Gilead Sciences. No other authors report any conflicts of interest.

Session 2 – Methamphetamine use disorder: psychosocial interventions
Session Chair – Ann Roche

Methamphetamine and mutual support: A mixed methods exploration of SMART Recovery participants' characteristics and opportunities for enhanced referral pathways

Peter J. Kelly[1,2], Alison K. Beck[1], Briony Larance[1,2], Amanda L. Baker[3], Frank P. Deane[1,2], Leanne Hides[4], Victoria Manning[5], Anthony Shakeshaft[6] & Angela Argent[7]

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Introduction and Aims:
The burden arising from methamphetamine use is a growing public health concern. People who use methamphetamine typically delay or avoid help-seeking. Efforts to improve help seeking and enhance access to a diverse range of support options is needed. Mutual support groups may play a role. For the first time, the current study will examine the demographic and clinical characteristics, service utilisation and help seeking experiences of SMART Recovery participants with recent methamphetamine use.

Design and Methods:
We have adopted a mixed methods approach comprising a) qualitative interviews (n=20) with SMART Recovery participants who have used methamphetamine in the preceding 12 months; b) analysis of routinely collected data from SMART Recovery facilitators regarding attendee characteristics and c) an online survey with 250 SMART Recovery participants (n=125 who report use of methamphetamine in the preceding 12 months).

Results:
Data collection and analysis is underway.

Discussions and Conclusions:
Mutual support is frequently overlooked as an important source of support in the alcohol and other drug (AOD) field, with few published studies examining SMART Recovery in Australia. The nature and characteristics of mutual support (peer-led) are highly valued by participants who may otherwise feel traditional AOD services are stigmatizing. Improving the links between SMART Recovery and the broader treatment sector has the potential to address a broad range of methamphetamine-related problems and presents an important opportunity to support more diverse groups of people who use methamphetamine (from problematic use to dependence) outside of the formal treatment system.

Disclosure of Interest Statement:
No disclosure of interest to declare

The methamphetamine approach-avoidance training (MAAT) trial: A randomised controlled trial of personalised approach bias modification for methamphetamine use

Victoria Manning[1,2], Joshua B. B. Garfield[1,2], Shalini Arunogiri[1,2], Hugh Piercy[1,2], Dan I. Lubman[1,2]

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Introduction and Aims:
The number of people seeking residential rehabilitation for methamphetamine use disorder (MUD) has increased dramatically in recent years. However approximately half of clients commencing methamphetamine rehabilitation resume methamphetamine use within 3-months. "Approach bias modification (ABM) is a computerised cognitive training approach designed to dampen "approach bias" (automatically-triggered impulses to approach drug-related stimuli). Its efficacy for reducing alcohol relapse rates has been repeatedly demonstrated, but no randomised controlled trials (RCTs) of ABM as a treatment for MUD have been conducted to date. We aim to test whether delivering a novel "personalised" form of ABM during rehabilitation reduces post-rehabilitation methamphetamine use, dependence severity, cravings, and approach bias.

Design and Methods:
We aim to recruit 100 MUD treatment clients at 3 residential rehabilitation services in the Melbourne metropolitan area. Participants will complete measures of methamphetamine use, craving, dependence severity, and approach bias before being randomised to receive either 6 sessions of ABM or 'sham' (control) training. ABM will be personalised for each participant, using the methamphetamine images they rate as most relevant to their methods of methamphetamine use as "avoidance" images, and using images representing positive goals or healthy sources of pleasure as "approach" images. Approach bias and craving will be re-assessed following completion of training, and methamphetamine use, dependence, and craving will be assessed 4 weeks and 3 months following discharge from residential treatment.

Discussions:
This study is the first RCT of ABM for MUD and also the first RCT of ABM using personalised drug-related and positive training stimuli.

Implications for Practice or Policy:
If effective, the low cost and easy implementation of ABM means it could be widely implemented as a standard part of MUD treatment.

Disclosure of Interest Statement:
DIL has provided consultancy advice to Lundbeck and Indivior, and has received travel support and speaker honoraria from Astra Zeneca, Janssen, Lundbeck, Shire and Servier, though none of these organisations stand to benefit from the current project. DIL has been an investigator on an untied education grant from Sequirus, unrelated to the current work. The authors have no other competing interests to declare.

Collaborative development of a clinician-administered checklist to facilitate retention and therapeutic engagement in substance use treatment

Adam Rubenis[1,2,3], Amanda L. Baker[4], Shalini Arunogiri[1,5]

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Introduction and Aims:
There is consistent evidence that psychosocial treatments are effective for individuals with alcohol and other drug (AOD) use disorders. However, low levels of retention lead to poorer outcomes for clients and lost productivity in an under-funded sector. This study aimed to explore low-cost strategies for increasing retention by consulting with clinicians and conducting a literature review. This study's secondary aim was to incorporate these strategies into an easily accessible checklist for clinicians.

Design and Methods:
Semi-structured qualitative interviews were conducted with clinicians working in the AOD sector (*N* = 15). A rapid review of treatment retention literature in the addiction field was also completed. The checklist was developed according to principles of implementation science, checklist development and member checking.

Key Findings:
Results from 20 outcome studies and 4 reviews suggested that the following interventions may improve retention: pre-treatment strategies (e.g., role induction), reduced wait time, SMS and telephone reminders, and some combined approaches. The checklist attempts to address barriers to implementation described by clinicians (time, financial, work practices). It includes elements of role induction, ongoing engagement (social reinforcement, appointment reminders) and 'common factors' for therapeutic engagement (e.g., collaboration, agreement on tasks).

Discussion and Conclusions:
There are a range of low-cost strategies that, individually, may confer small benefits on treatment retention. A checklist may address perceived barriers to implementing multiple strategies, potentially offering a cumulative benefit to treatment retention. Evaluation of feasibility and utility of the checklist is worthy of further research.

Disclosure of Interest Statement:
The authors have no conflicts of interest to declare.

An acceptability and feasibility study of the We Can Do This online therapeutic program in primary care and residential rehabilitation settings.

Rachel Reilly[1], Rebecca Mcketin[2], Julia Butt[3], Yvette Roe[4], Nadine Ezard[5], Brendan Quinn[6], Jack Nagle[7], Wade Longbottom[8], Carla Treloar[9], Clifford Warrior[10], Daley Hammersley[11], James Ward[12] on behalf of the other NIMAC investigators and partner sites.

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Introduction and Aims:
We Can Do This is a web-based application (web-app) developed for Aboriginal and Torres Strait Islander people who are seeking to reduce or stop using methamphetamine. Here we report on the early stages of an evaluation of the web-app's acceptability and feasibility as a resource for clinicians to use with clients in residential rehabilitation services and primary care. Here we describe the development and preliminary findings of this mixed-methods study, which is still underway.

Design and Methods:
Clinicians and clients who have used the web-app are being recruited via Aboriginal Community Controlled Health Services and Aboriginal residential rehabilitation services in urban and regional Victoria and South Australia.

Non-identified usage data is being collected from all participants. After using the web-app, those who have indicated a willingness to be interviewed are being contacted and interviewed by phone or in person.

Key Findings:
So far, usage data and interviews with 2 clinicians and 4 clients have highlighted barriers to using the web-app for clients, including a lack of internet connectivity, literacy, and personal issues such as fatigue or scheduling. Clinicians found that client crises often precluded engagement. Conversely, both clients and clinicians found the content engaging, relevant and mostly easy to understand and use.

Discussions and Conclusions:
Process evaluation is often under-valued but as *We Can Do This* is new, innovative and targets a hard to reach population, understanding how it is implemented, its feasibility and acceptability as a clinical tool is essential to understanding its potential.

Implications for practice:
While it is not yet possible to draw firm conclusions from this research, the findings have already informed the development o a clinician guide that will be an important project output to enable clinicians to use the web-app to its full potential with their clients.

Disclosure of Interest Statement:
No pharmaceutical grants or other industry grants were received in the development of this study.

Session 3 – Methamphetamine use disorder: using data for improved outcomes

Session Chair – Michael Farrell

Characteristics of People Entering Drug and Alcohol Treatment in New South Wales (NSW): Focus on Amphetamine Type Substance (ATS) use

Emma Black[1,2,3], Rachel Deacon[1,2], Llewellyn Mills[1,2], Adrian J Dunlop[4,5], Nadine Ezard[3,6,7], Raimondo Bruno[3,8], Anthony Shakeshaft[3], Michael Farrell[3], Jennifer Holmes[9], Michelle Cretikos[10], Mark Montebello[2,3,11], David Reid[12,14], Steven Childs[13], Krista Siefried[6,7], Kristie Mammen[1] and Nicholas Lintzeris[1,2,14]

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Presenter's email: Emma.Black@health.nsw.gov.au

Introduction and Aims:
The Australian Treatment Outcomes Profile (ATOP) is embedded as a clinical review tool in NSW government Alcohol and Other Drugs (AOD) services' electronic clinical information systems (eCIS). This provides new opportunities to build on our understanding of the client population who use amphetamine type substances (ATS). The study aimed to extend our understanding of the clients who use ATS at entry to services.

Design and Methods:
N=13,864 client records extracted from N=6 Local Health Districts (LHDs). A multinomial regression for 9,981 clients (72% of the sample) for whom complete data were available examined substance use, wellbeing and social factors associated with ATS use frequency.

Results:
Recent ATS use was reported by 71% of people with ATS, 25% opioids, 17% cannabis and 5% alcohol as principal drug of concern (PDOC). Among all clients, 24% had used ATS in the preceding 28 days. A multinomial regression (χ^2(df=32)=3175.96, p<0.001) indicated that greater frequency of ATS use (no use, low, high) was associated with a greater likelihood of arrest, injecting, and cannabis use and poorer quality of life.

Discussion and Conclusions:
ATS use is reported by people across the treatment spectrum, regardless of their principal substance of concern, and not all clients presenting for ATS treatment have used recently. People who use ATS (regardless of PDOC) report some greater social harms and poorer wellbeing than those who do not. Enquiry regarding recent use of ATS as well as the PDOC should therefore form part of intake and follow up assessment.

Implications for Practice or Policy
Treatment information that relates to clinical workflow and is embedded in eCIS allows for data to be collected at point of care. It can also be rapidly made available for use by clients, service managers and policymakers to explore the characteristics and outcomes of people who attend ATS treatment services.

Implications for Translational Research
Electronically collected assessment data can be used to understand client groups and treatment needs on a large scale in a timely, ongoing manner. It also provides opportunities for the routine measurement of service effectiveness and point of care trials.

Disclosure of Interest Statement:
Two of the investigators (KS and NE) work for the National Centre for Clinical Research into 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. None of these investigators had a role in determining funding allocation to this study.
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).

Impact of Amphetamine Type Stimulant Use on Clinical Outcomes in OTP Clients

Llewellyn Mills[1,2,] Emma Black[1,2,3], Rachel Deacon[1,2], Adrian J Dunlop[4,5], Nadine Ezard[3,6,7], Raimondo Bruno[3,8], Anthony Shakeshaft[3], Michael Farrell[3], Jennifer Holmes[9], Michelle Cretikos[9], Mark Montebello[2,3,10], David Reid[11,13], Steven Childs[12], Krista Siefried[6,7], Kristie Mammen[1], Nicholas Lintzeris[1,2,13]

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Presenter's email: Llewellyn.Mills@health.nsw.gov.au

Introduction and Aims:
The Australian Treatment Outcomes Profile (ATOP) is embedded as a clinical review tool in NSW government Alcohol and Other Drugs (AOD) services' electronic clinical information systems (eCIS). This provides new opportunities to build on our understanding of the client population who use amphetamine type substances (ATS). The study aimed to investigate the relationship between ATS use and treatment outcomes in an opioid agonist treatment (OAT) population.

Design and Methods:
N=2,008 client records extracted from N=6 Local Health Districts (LHDs). Mixed effects models for repeated measures regressions tested the rate of change in clinical outcomes by baseline frequency of ATS use.

Results:
Clients reporting frequent ATS use at the start of treatment used more non-OAT opioids and cannabis than non-ATS users and reported poorer wellbeing. However, these differences were negligible after 12 months in treatment.

Discussion and Conclusions:
Providing they stay in treatment, the prognosis at one year for clients who are using ATS at baseline is not significantly worse than for the clients who are not.

Disclosure of Interest Statement:
Two of the investigators (KS and NE) work for the National Centre for Clinical Research into 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. None of these investigators had a role in determining funding allocation to this study. 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).

Clinical outcomes and measures used in randomised controlled trials examining pharmacotherapy for methamphetamine dependence

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Introduction and Aims:
Clinical research requires careful selection of measurable outcomes. Harmonised outcomes and methods to measure them enhances the capacity to meta-analyse data and increase generalisability.

Methods:
We systematically reviewed the peer-reviewed literature to 19 June 2019, for randomised controlled trials reported in the English language examining a pharmacological treatment for methamphetamine / amphetamine dependence or use disorder. Selected studies were evaluated for outcomes and measures, which were any reported impact of treatment related to AMPH/MA use.

Key Findings:
Our search returned 43 studies that met our criteria, collectively enrolling 4,065 participants and reporting on 23 individual pharmacotherapies, alone or in combination. In total, 55 primary outcome measures were used (inclusive of variations) 93 times (as some studies had multiple primary outcomes). The most common primary outcome reported was abstinence (51 times, 55%); defined most typically as non-use in the last 14 days of the study or a non-use period of 21 days. Abstinence was measured by self-report, or by negative urinalysis at pre-determined time points.

Discussions and Conclusions:
Definitions of efficacy of pharmacotherapies vary extensively. While some studies define success by abstinence from meth/amphetamine, others consider a reduction in use to be a measure of treatment success. The desired goal of pharmacotherapy will likely vary dependent on the patient, and must be patient-focused and clinically relevant.

Implications for Practice:
Clinical researchers can benefit from selection of outcomes and measures that comport well with the literature to enhance the contextual placement of their research, improve sector-wide ability to systematically review and meta-analyse data and generalise results across studies that often have under-powered samples.

Disclosure of Interest Statement:
KJS is employed by the National Centre for Clinical Research on Emerging Drugs (NCCRED) through the National Drug and Alcohol Research Centre (NDARC) at UNSW, and has no other conflicts to declare. LA is supported by an Australian Government Research Training Program Scholarship and an NDARC, UNSW Scholarship, and has no other conflicts to declare. NL is employed by the New South Wales Ministry of Health, South Eastern Sydney Local Health District, and has received research funding from Camurus, and has served on Advisory Boards for Mundipharma, Camurus and Indivior. NE is employed by NCCRED and St Vincent's Hospital Sydney and has no other conflicts to declare.

Session 4 – Emerging drugs of concern: signal detection for prompt response
Session Chair – Simon Lenton

Conclusion of the South Australian Drug Early Warning System - Emergency Department Admission Blood Psychoactive Testing (EDABPT) Study

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Introduction and Aims
Hospital level toxicology data from Emergency Departments (EDs) may provide useful information on drug use causing acute harm in the community. However, the often limited capability for comprehensive toxicological analysis in EDs means that any current data is subjective and of limited accuracy. We report on a study to improve knowledge on the drugs affecting patients experiencing severe intoxication, examine trends in poly-drug use among methamphetamine users, and identify new substances or trends in harmful drug use. The project ran from March 2019 until May 2020.

Design and Methods
An NCCRED Capacity Building grant facilitated expansion of an existing pilot study to conduct analysis of samples from 4 Adelaide metropolitan hospitals. Human research ethics approval was obtained to enable blood samples to be taken from intoxicated patients with waiver of consent. Sample subjected to a comprehensive toxicological analysis including alcohol, GHB and common illicit and pharmaceutical drugs (>500). Symptomatic, clinical and demographic data was recorded; this data together with analytical results was compiled and targeted information of interest extracted. Relevant data was disseminated to appropriate agencies.

Results
Blood samples from 1120 ED patients exhibiting symptoms of drug intoxication were collected and analysed. While methamphetamine was the predominant illicit drug in the cohort (55% of samples, 0.01 – 3.4mg/L, average 0.33mg/L), it was not considered the dominant cause of pathologies observed. GHB was also prevalent (28% of samples), with the predominant observed pathology being CNS depression despite often accompanying elevated methamphetamine concentrations.

Discussion and Conclusions
An ethically acceptable model was established that allowed collection of samples from intoxicated ED patients with waiver of consent. Preliminary results suggest pathologies observed are not directly indicative of the drugs present and that the rate of poly-drug use is high. Dissemination mechanisms in place ensure data is distributed to relevant agencies and organisations concerned with drug use and abuse. Significant outcomes included improved awareness of GHB harm, poly drug use and detection of emerging new psychoactive substances.

"Brevity of data will take precedence": evolution of a national minimum dataset of illicit and emerging drugs in the emergency department. Emerging Drug Network of Australia

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Introduction / Issues:
The Emerging Drugs Network of Australia (EDNA) brings together emergency physicians, toxicologists and forensic laboratories to establish the first standardised toxicosurveillance system of illicit and emerging drugs in Australia. The development of a national minimum dataset (NMD) capable of early and accurate detection of emerging drug issues and their clinical effects is central to EDNA's toxicosurveillance system.

Method / Approach:
Since November 2019, five iterations of the NMD have been conducted. Critical feedback on proposed data items have been captured across the following domains: triage information; reported drug exposure; clinical findings; management (pre-hospital and hospital pharmaceutical and non-pharmaceutical interventions); advanced illicit drug analysis (provided by forensic laboratory); and patient outcome. Here we provide insight into several context-dependent considerations that have shaped the development of the EDNA dataset to date.

Key Findings:
The complexities of conducting research in the rapid care context of EDs have strongly influenced the scope of our dataset. For example, desire to collect extensive clinical data on emerging synthetic drugs has been contained by concerns around feasibility and "*burden*" on staff of collecting "*worthy but exhaustive sets of data points*". In this sense, consensus regarding a "*critical data only approach*" has provided a systematic framework for prioritising data items critical to achieving the outcomes of EDNA's Toxicosurveillance System.

Discussions and Conclusions:
Our collaborative network has reinforced the need to balance sufficiency of data to achieve meaningful insight, with a dataset that can be consistently replicated, and minimise burden on physicians.

Implications for Translational Research:
EDNA will provide a benchmark model for standardising data collection, surveillance and reporting of illicit drug-related ED presentations in Australia. Translation of clinical and toxicological evidence into timely, appropriate harm reduction and public health policy will strengthen Australia's response to new and emerging drug trends.

Disclosure of Interest Statement:
This project is supported by funding from the National Centre for Clinical Research on Emerging Drugs (NCCRED), funded by the Australian Government Department of Health.

The implementation of the Recreational Drug Intoxication Protocol

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Introduction and Aims:

1. The Implementation of the Recreational Drug Intoxication Protocol
2. Examining the clinical features and patterns/ clusters in the numbers of samples positive for illicit and NPS in patients presenting with drug intoxication to WA metropolitan emergency departments.
3. Developing a Toxicological Surveillance System.

Methods:

Implementing the rollout of the Recreational Drug Intoxication Protocol that includes sample collection and analysis in metropolitan Western Australian emergency departments. Patients are identified on presentation and samples are collected and transferred to the Chem Centre for analysis.

Key Findings:

The implementation of the Clinical Protocol across WA health sites will form an essential part of improving clinical care in this cohort of patients. The key outcomes will be the identification of illicit substances in blood samples and linking these to the clinical presentation and determining patterns and clusters of drug consumption across sites.

Discussions and Conclusions:

The implementation of the Clinical Protocol at various WA ED sites is a key step to managing these cohorts of patients as well providing high quality objective information in regard to illicit and emerging drugs in Australia.

Implications for Practice or Policy:

The data from the Clinical Protocol will feed into the EDNA project that will help inform public health policy by providing invaluable information on the nature and degree of the problem, rapidly identifying new substances and developing a toxicological surveillance system.

Disclosure of Interest Statement:

None reported

Feasibility, consumer acceptability and behavioural outcomes associated with take-home fentanyl test strips

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Introduction and Aims:
Fentanyl and fentanyl analogues pose an urgent public health threat. These substances are of higher potency than other opioids and are increasingly being used to adulterate heroin, contributing to tens of thousands of deaths worldwide. To mitigate the risk of unwitting fentanyl consumption, community-based organisations have started to utilize and distribute fentanyl test strips (FTS).

Although Australia has not yet witnessed the same magnitude of fentanyl-related overdoses, it is of critical importance that we be prepared to respond should similar trends start to emerge. This project aims to determine the feasibility, consumer acceptability, and behavioural outcomes associated with take-home FTS, providing an evidence base for implementation and expansion across services in Australia.

Design and Methods:
This study will distribute take-home FTS to a convenience sample of people who use heroin (n=80). Prior to receiving the strips, participants will attend a short training session on how to use and interpret the strips. A four-week follow-up survey will be conducted to assess uptake and consumer acceptability of the strips, as well as associated behavioral changes**.**

Results:
Recruitment is currently underway, with 20 participants recruited and 12 follow-up surveys conducted. As such, results are not yet available.

Discussions and Conclusions:
The results of this study will contribute to the evidence base for take-home FTS in the Australian context and has the potential to support the implementation and expansion of take-home FTS distribution across Australia, increasing Australia's preparedness to respond to the public health threat of undetected fentanyl and its analogues.

Disclosure of Interest Statement:
AP and RS have received an untied educational grant from Seqirus for a post-marketing study of tapentadol. AP and RB have received an untied educational grant from Mundipharma for a post-marketing study of oxycodone and RB has received an untied educational grant from Indivior for a study of buprenorphine depot and a separate study to develop a scale for the assessment of extra medical opioid use. *No pharmaceutical grants were received in the development of this study.*

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