

Mental Health and Substance Use Protocol Programme: Clinical Network

Responding to stimulant use

Agenda

Time	Topic	Lead
1pm	Welcome and introductions	Dr Chanpreet Blayney, Clinical Lead for the Mental Health and Substance Use Programme at Healthcare Improvement Scotland; Consultant Psychiatrist, NHS Greater Glasgow and Clyde
1.10pm	Drug Research Network Scotland: Treatments for stimulant use dependence – a rapid review for policy makers and practitioners	Dr Lisa Schölin, Research Fellow at College of Medicine and Veterinary Medicine at The University of Edinburgh Dr Andrew Williams, Senior Lecturer in the School of Health in Social Sciences at University of Edinburgh
1.30pm	Q&A/Discussion	All
1.50pm	Managing cocaine use with co-occurring opiate dependence in Glasgow Alcohol and Drug Recovery Service and the role of the cocaine toolkit	Dr Kate Browne, Senior Medical Officer, NHS Greater Glasgow and Clyde Alcohol and Drug Recovery Services
2.20pm	Q&A/Discussion	All
2.40pm	Closing remarks	

DRNS Treatments for stimulant use disorder – a rapid review for policy makers and practitioners

Dr Lisa Schölin and Dr Andrew James Williams, University of Edinburgh

Dr Jonathan Brett (not in attendance), University of Edinburgh/St Vincent's Hospital Sydney

Leading quality health and care for Scotland

Presentation overview

- What is the Drugs Research Network for Scotland?
- Rationale for the rapid review
- Review methods
- Review findings – What works/doesn't work
- Review findings – Challenges for research and practice
- Your questions for us
- Our questions for you

Drugs Research Network for Scotland

- Founded in 2017 and hosted at University of Stirling
- Aim to foster knowledge exchange between creators, contributors and users of research
- Hosting moved to University of Edinburgh in 2023



Drugs Research Network for Scotland

- Funding reduced with the transfer of hosting, reduced staff time and ability to fund any projects
- Core focus is knowledge exchange across the year:
 - 4 seminar events on diverse topics
 - 1 annual conference
 - Generation of 1 rapid review
- Keen to ensure we cover broader issues e.g. policing, medicinal use of drugs

Drugs Research Network for Scotland

- Event held in November 2023 to gather views on research priorities
- Guides our activities and events
- Four key areas:
 - **Harms and drug-related deaths** (e.g. surveillance and monitoring, integrating technology, stigma and social determinants)
 - **Treatment and recovery** (e.g. Buprenorphine, ACEs and trauma informed care)
 - **Legal changes** (policing strategies, legislation and harm reduction)
 - **Drugs as medicine** (e.g. psychedelics and cannabis in mental health care and pain management)



Event Report

Priorities for Scottish Drugs Research

Background

Drug-related harms, including drug-related deaths, continue to affect people who use drugs, families, communities, and the wider society. There is an ongoing need to generate and use evidence to inform delivery of the *National Mission on Drug Deaths* and to keep people who use drugs safe. With recent policy developments, such as de facto decriminalisation of possession of drugs for personal use, and growing interest in the role of currently illegal substances as treatments for chronic health conditions there is a need to further focus future drugs research on areas that can have an impact on the Scottish population.

The Drugs Research Network for Scotland (DRNS) is funded by the Scottish Government to support the development of collaborative working and knowledge exchange in drugs research. DRNS held an online event on 17 November 2023 to gather views from those engaged with the network to discuss research priorities for Scottish drugs research. This report summarises identified priorities across four broad themes: i) harms and drug-related deaths, ii) treatment and recovery, iii) legal changes and iv) drugs as medicines. This document can serve as a reference for researchers to support the development of research proposals and grant applications aligned with current research priorities.

Harms and drug-related deaths

- **Diversity of drug using groups** – Broader approaches of drug use and populations beyond single substances and demographic groups. Focus on the diverse subgroups at risk, such as aging high-risk heroin users, the emerging younger population of people who use drugs, women, and people experiencing homelessness. A holistic research framework to fulfil the National Mission's emphasis on improving quality of life.
- **Additional vulnerabilities** – A research framework that considers the lifecycle frailty, homelessness, and the potential brain implications following a near-fatal overdose.
- **Surveillance and monitoring** – Dynamic surveillance that recognises the changing landscape of drug use including new drugs (e.g. benzodiazepines and nitazenes) in the supply and patterns of use. Data collection methods should include qualitative research involving lived and living experiences to understand the challenges faced within drug use and treatments.
- **Integrating technology** – The integration of technology such as AI and data-driven approaches. Technology as research priority emerged as it could hold potential in shaping

<https://drns.ac.uk/wp-content/uploads/2024/01/Priorities-for-Scottish-Drugs-Research-Event-Report.pdf>

Rationale for rapid review

- Treatment theme and consultation with network partners
- Cocaine an increasing issue in both drug-related death data and surveillance data (the ASSIST study)
- Aimed to be complementary to Public Health Scotland's work



Global and national statistics



- Global amphetamine-type drug use estimated to be **0.7% with 11%** dependent and cocaine use **0.4% with 16%** dependent (Farrell et al. 2019)
- Global concerns of increased stimulant use and harms due to changes in global markets (Stoneberg et al. 2018)
- Cocaine use among people who inject drugs in Scotland increased from 9% to 60% (2010 vs 2022-23) (PHS, 2023)
- Increased involvement of cocaine (from 7% to 41%) and amphetamines (from 0.6% to 7%) in deaths Scotland (2010 vs 2023) (PHS, 2024)

Focus of the review

- On backdrop of increasing use and involvement in drug-related deaths of particularly cocaine, need for exploring treatment evidence
- Aim of the report was to summarise systematic review evidence of effective treatment options
- Noting emerging areas where evidence is still limited



Review methods

- Focus on summarising the evidence for policy makers and practitioners
- Systematic reviews had been published recently
- Rapid review of systematic reviews of randomised controlled trials
- Not primary research
- Initial group of 3 reviews
- Searching research databases identified another 9



Review findings

- All included reviews published in the last 8 years
- Reviewing evidence up to September 2023
- 10 Systematic reviews and 3 Reviews of Reviews
- Ranged from reviewing 8 RCTs through to 157 RCTs and 29 reviews
- 561 to 15,824 participants (likely to be more)
- 6 single substance reviews (mostly cocaine)



Review findings

Consistent evidence of benefit

- Contingency management

Consistent evidence of no benefit

- Acupuncture
- Antipsychotics
- Dopamine agonists
- Other anticonvulsants
- Other antidepressants

Insufficient or inconsistent evidence of benefit

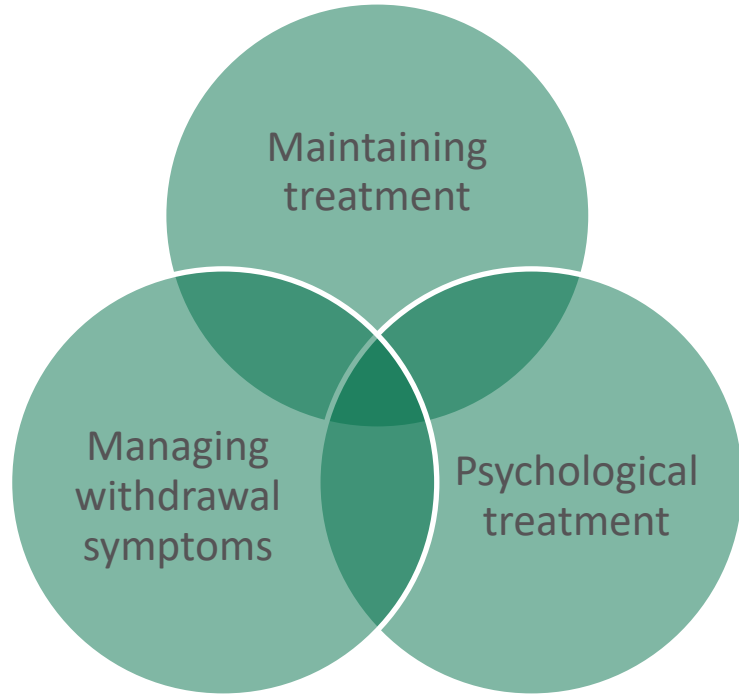
- 12-step facilitation
- Acceptance and Commitment therapy (ACT)
- Cognitive Behavioural Therapy (CBT)
- CRF1 antagonists
- Disulfiram
- Mirtazapine and bupropion
- Matrix model
- Motivational interviewing
- N-acetylcysteine
- Opioid agonist therapy
- Oxytocin
- Psychostimulant therapy
- Psychodynamic therapy
- Riluzole

Contingency management?

- Rewarding patients for a specific and measurable desired behaviour
 - Negative urine drug test
- Evidence is from the US, reward value ranges from around £1.13 to £92 per day
- Reduces treatment drop out
- Effective at keeping patients in treatment, but what treatment?



What is treatment for stimulant use



No replacement for the substance

What about broader social support/context?

Treating the cause of the addiction?

What is a good outcome?

- Abstinence
- Reduction in use
- Management of withdrawal symptoms
- Harm reduction
- Management of co-morbidities
- Retention in treatment
- ...

Adverse events?

How should these be measured in practice and research?



Challenges

- Diversity
 - Who uses stimulants
 - What they use and how often

Studies exclude:

- People with co-morbidities such as stimulant induced psychosis
- People using more than one substance

Women are underrepresented within studies



Challenges

- Treatment for one stimulant might not be effective for another
- Range of outcomes studied
- Retaining participants in trials
- Barriers to treatment (social and financial)



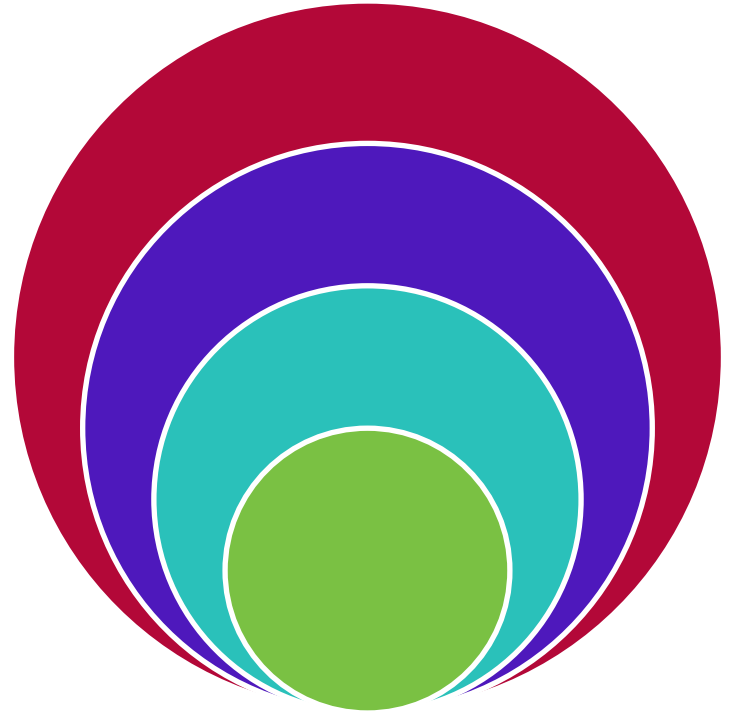
Individual barriers to treatment

Systematic reviews have identified:

- Belief that treatment is not needed
- Wanting to withdraw without help
- Embarrassment and stigma

Women

- Trauma
- Intimate partner violence
- Fear of children being taken into care



Watch this space

Emerging treatments awaiting RCT

- Psychedelic-assisted psychotherapy
- Ketamine-assisted psychotherapy
- Exercise therapy
- Repetitive transcranial magnetic stimulation (rTMS)
- Residential rehabilitation
- Others...

The US Food and Drug Administration (FDA) has recently published updated guidance on how to conduct trials of treatments for stimulant use disorder, including preferred outcome measures

<https://www.fda.gov/regulatory-information/search-fda-guidance-documents/stimulant-use-disorders-developing-drugs-treatment>

Questions

- What questions do you have for us?

Our questions to you?

- What is a good outcome?
- What treatment approaches help reach that outcome?

Keep in touch

Twitter and Bluesky: @DRNScot (also on LinkedIn)

Email: admin@drns.ac.uk, lscholi2@ed.ac.uk,
v1jbret2@exseed.ed.ac.uk, andrew.j.williams@ed.ac.uk

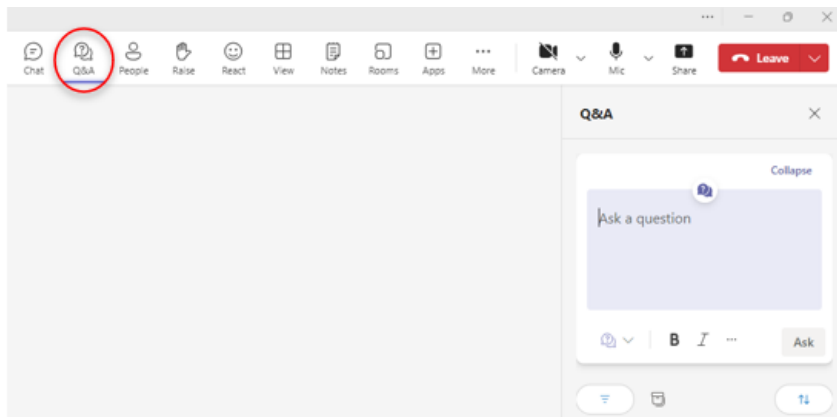
Web: <https://drns.ac.uk/>

The Drugs Research Network for Scotland is funded by the Scottish Government and DRNS is grateful for the funding to produce the review.

Panel discussion

Please use the 'Q&A' function to post any questions you may have.

Select Q&A, type in your question and select 'Ask' to post.

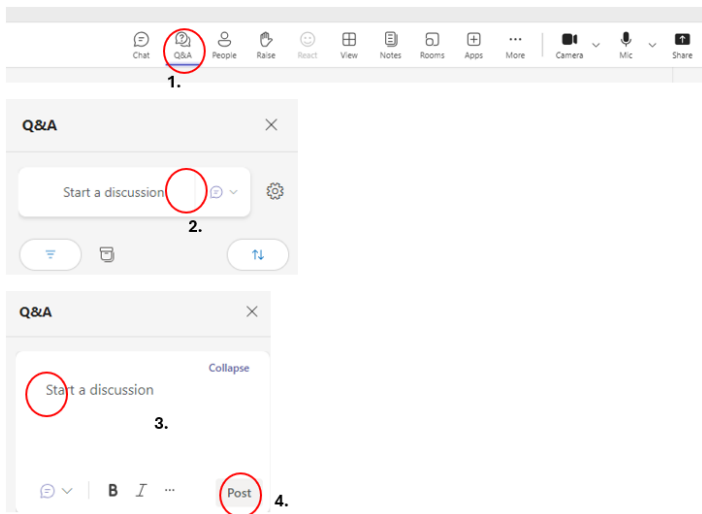


1. Use the 'vote' option if you would like to hear the answer of another attendee's question, to push it to the top of the list
2. Use the thumb option to react to other questions
3. Use the comment option to respond to other questions



Panel discussion

Using the Q&A function, you can start a discussion to describe your experiences, think about the questions below but also include any other experiences that you think may be relevant.



1. Select the Q&A function
2. Select 'start a discussion'
3. Use the text box to write anything you would like to share
4. Select 'post' to submit

Panel Discussion

- What are your experiences of treating people with stimulant use and co-occurring mental health challenges?
- What is a good outcome?
- What treatment approaches help reach that outcome?

Managing cocaine use with concomitant opiate dependence in Glasgow Alcohol and Drug Recovery Service and the role of the cocaine toolkit

Dr Katie Browne, Senior Medical Officer, Glasgow Alcohol and Drug Recovery Service (GADRS)

Prevalence of Cocaine Use

- Cocaine is implicated in more than a third of drug related deaths in Scotland
- Individuals and services are reporting increasing poly-drug use involving cocaine
- Cocaine has become the primary drug of injection for the majority of people who prepare and inject drugs in Glasgow City
- Many of these individuals are linked in with services and receiving OST
- Presentation is often different from those using depressant drugs alone
- Harm reduction and treatment options vary from traditional interventions used with people using opiates alone

Stimulant SLWG

Develop a resource to support staff, strengthen knowledge and understanding, and provide tools to support people using cocaine

- Dr Katie Browne (Senior Medical Officer, GADRS)
- Dr Beate Beck-Schwahn (Consultant Psychiatrist, ADRS)
- Dr Peter Brennan (Principal Clinical Psychologist, ADRS)
- John Campbell (IEP Improvement Manager, ADRS)
- Dr Anna Fletcher (Consultant Addiction Psychiatrist, ADRS)
- Stephanie Hartley (Cognitive Behavioural Therapist, ADRS)
- Amanda King (Research & Care Governance Assistant, ADRS)
- Katy MacLeod (Peer Research & Inclusion Programme Manager, SDF)
- Karen Rowell (Advanced Pharmacist Independent Prescriber, GADRS)

Cocaine Toolkit Street Terms Quiz

1. Which of these terms are used to refer to powder cocaine?

a) Gear, b) Coke, c) Charlie, d) Chino, e) Ching, f) Snow

2. The most commonly sold weight of powder cocaine is 1 gram. Fill in the sentence below to complete the commonly used street term for this quantity of cocaine- 'Eggs and ?'

3. A line of cocaine snorted can be referred to as (select all that apply)-

a) Line, b) Patsy, c) Patsy Cline

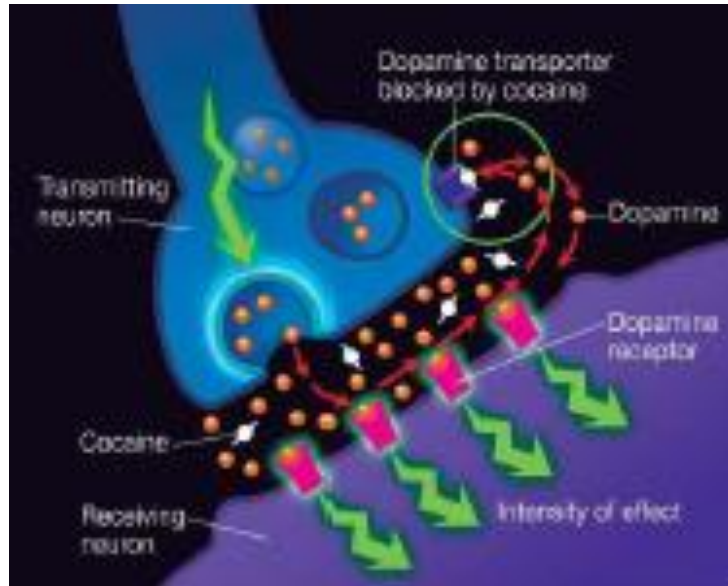
4. A small mound of powder cocaine which is snorted without a straw is called?

a) Bump, b) Key, c) Spoon

5. Complete the sentence-

Poor quality cocaine, approximately £30 per grams is often referred to as ?

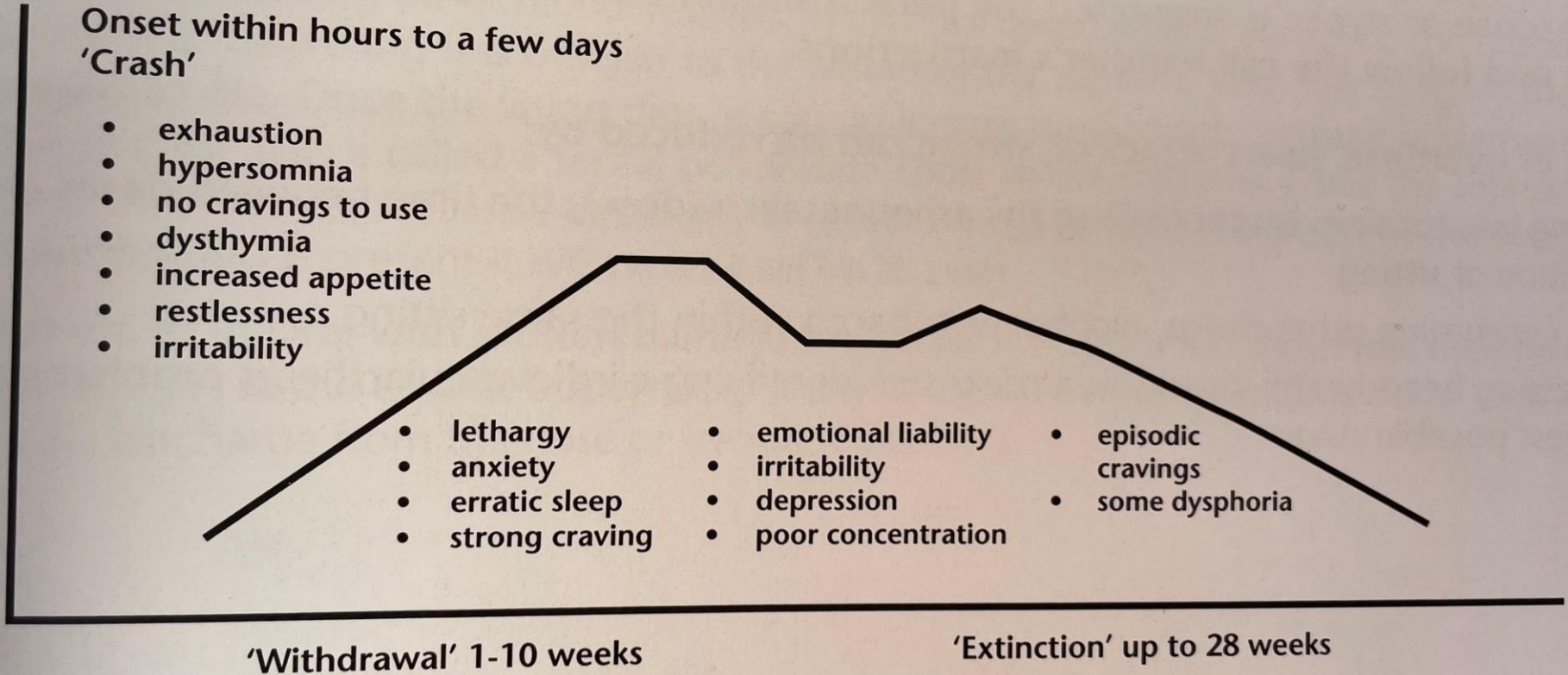
Cocaine Overview



Cocaine Overview

- Powder Cocaine (gear, coke, charlie, chico, ching, snow) is the most common form of cocaine to be sold
- The most commonly sold weight of powder cocaine is 1 gram (G, gram, eggs and ham)
- Crack cocaine is a base form of cocaine that can be easily produced using water and baking soda
- Suppliers often add bulking agents to increase profit
- A rock costs £10-20 depending on weight and purity
- Glasgow has a well established cocaine market selling small £10 bags for injection, poor quality 'council' approx £30 per gram, medium quality '50-50' approx £50 per gram and high quality 'prop/proper' at £80 per gram
- Freebase is produced by freeing the cocaine base using ammonia
- It is almost 100 % pure and not commonly sold at street level

Cocaine and Psychological Dependence



Mechanics of Cocaine Administration – Snort, Smoke and Inject

- Snort risks
 - Septum perforation
 - BBVs and other infections
- Smoke risks (crack/freebase)
 - Asthma, COPD, pneumonia, respiratory failure, ammonia from freebase damage ‘crack lung’
 - BBVs and other infections
 - Makeshift pipes- drinks cans, plastic bottles, glass miniatures, metal scouring pads, recycling with nail varnish remover causing toxic fumes and particle inhalation
 - Burns, cuts
- Injecting risks
 - BBVs and other infections from sharing needles and other paraphernalia (spoons, filters, water)
 - Frequent injections causing vein collapse, anaesthetic effect causing missed hits and damage, rhabdomyolysis ‘muscle popping’, circulatory problems

Reducing Harm for People who Snort, Smoke or Inject

- Snort harm reduction
 - Timing, alternating, sterile surface and straw length, line size, consistency, dousing
- Smoke harm reduction
 - Rinse freebase rocks, purpose made (long enough) glass or steel pipes, appropriate flame reach, pipe gauze, individual use, expelling smoke from lungs, avoid tobacco
- Injecting harm reduction
 - New, single use injecting equipment, hygiene, raising veins, smallest size needle possible, rotate sites, avoid intramuscular/subcutaneous injection

Physiological and Psychological Harms

- It is easy to consume a life threatening amount of cocaine
- Overdoses can occur during binges
- Central nervous system overstimulation
 - Blood pressure, heart rate, breathing rate and body temperature climb
- Disinhibition and sexual risks
- Interaction between cocaine and alcohol is complex
 - When consumed together the body produces a third chemical coca ethylene
- Increased risk with sedative medications due to masking respiratory depression and risk of overdose

Physical Health Monitoring and OST

- Commencement of OST can lead to reduced cocaine use- do not delay OST
- ECG is a useful tool but delaying treatment may increase rather than reduce risk
- Reduced risk of QT prolongation and respiratory depression with buprenorphine but choice is individual
- Higher treatment range OST doses associated with reduced cocaine use- optimise dose
- Review prescribed medications due to increased risks from QT interval prolonging medications
- Revisit and review risk regularly

Responding to Mental Health Crisis

- Difficult to differentiate mental illness and temporary drug-affected behaviour
- Crisis assessment rather than full mental health assessment
- Common symptoms:
 - Extreme anxiety, paranoia, hallucinations, persecutory beliefs, delusional thoughts, self harm, suicidal ideation, aggression (usually a fear response)
- Majority resolve when substance(s) wear off and sleep has been prioritised
- Acute behavioural disturbance, excited delirium and serotonin syndromes are medical emergencies
 - Extreme overheating (hot to touch, sweating), muscle rigidity, jerking, hyperreflexia, excessive strength, insensitivity to pain, high level of physical activity and energy without tiring

Responding to Mental Health Crisis

- De-escalation in the acute setting-
 - Establish safety and trust, clear and supportive communication, verbal reassurance, grounding techniques
- Chronic use or heavy binges may cause more persistent symptoms-
 - Paranoid ideation associated with anxiety and panic
 - Depression and suicidal thoughts
 - Psychotic disorder with paranoid delusions and hallucinations (auditory or tactile 'cocaine bugs')
 - Delusional parasitosis 'Ekblom Syndrome'

An Overview of Psychosocial Interventions

- Motivational enhancement:
 - Establishing a supportive, caring therapeutic relationship
 - Finding topics that motivate interest (motivational hooks)
 - Enabling conversations which explore and discuss substance use
 - Explore the pros and cons of behaviour change
 - Strategies for supporting positive change
- Developing control over impulsive behaviour:
 - Identifying and managing triggers
 - Coping with cravings
 - Seemingly irrelevant decisions and high risk situations
- Goal setting and relapse prevention

Conducting an Assessment with People Using Cocaine

A new assessment tool which includes:

- Range of drugs used and patterns of use
- Types of cocaine used and pattern of use
- Settings and hygiene
- Dependence symptoms, side effects, polysubstance use to manage side effects
- Physical and mental health
- Sexual health and BBVs
- Detailed exploration of injecting and smoking habits

1. Kaut and Kautz: A Recovery Plan for Rural Health and Rural Health Care Forces. Seattle: Government August 2019. <https://www.governor.wa.gov/wp-content/uploads/2019/08/Recovery-Plan-for-Rural-Health-and-Rural-Health-Care-Forces.pdf>

A Special Thanks To-

The peer volunteers and people with lived and living experience who contributed to the development of the toolkit through facilitated group discussions and pilot of the draft document

Next Steps

- A paper copy was made available to all GADRS staff in addition to digital access
- [NHSGGC Alcohol and Drug Recovery Services - Cocaine Toolkit - NHSGGC](#)
- Staff survey was completed in 2024 showing that of the 66 respondents, 67% were aware of the toolkit and 26% had used it
- ADRS Workforce Development Group is developing a Cocaine Toolkit staff training session

Cocaine Toolkit Street Terms Quiz- Answers

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Poor quality cocaine, approximately £30 per grams is often referred to as '**council**'

Open Discussion and Q&A



Feedback

**Use the link in the chat
box or scan the QR code**

**Mental Health and Substance Use
Clinical Network: Responding to
Stimulant Use**



Next Steps



Mental Health and Substance Use Distribution list

Mental Health and Substance Use
- Distribution list consent form



Use the link in the chat box to sign up to our distribution list to ensure you receive all communication around future mental health and substance use events, including how to register

Keep in touch

Twitter: @online_his

Email: his.transformationalchangementmentalhealth@nhs.scot

Web: healthcareimprovementscotland.scot

Find out more: <https://ihub.scot/improvement-programmes/mental-health-portfolio/mental-health-and-substance-use-programme/>