What is effective in drug disorder treatment: what we can learn from the evidence-base about what “works” and what “doesn’t work”.

Annette Dale-Perera

Evidence-based principles for effective drug demand reduction:

Applying theory to practice

ISSUP International Society of Substance Use Professionals

ISSUP International Conference

8-10 December 2021

Declaration of interests

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- **Colombo Plan**
  - contract to help set up International Consortium for Quality in drug treatment (ICQ)
  - Training co-Ordinator – pilot of UPC 5: Prevention in Schools
  - Member of treatment advisory expert group – Universal Treatment Curriculum
- **United Nations Office on Drugs and Crime**: international consultant on quality in drug use disorder treatment and psychosocial and recovery intervention protocols and guidelines
- **University of Middlesex** (London) visiting academic including transformation of Universal Curricula to on-line moodle course
- **Director adpconsultancyUK**
- **Previously:** NHS Addiction Services Director; national quality lead for substance use disorder treatment for England and research fellow

Covering

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- **Effectiveness and evidence-base**
  - Issues to considerations
- **Headlines on some of the key interventions for drug use disorder treatment**
  - Assessment and treatment planning
  - Psychosocial interventions
  - Pharmacological interventions
  - Recovery management
- **Take home points: individualized treatment and patient journeys**

What does ”effective” mean?

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‘Effective’ means “based on scientific evidence of impact”

Not all evidence is the same:

- **Weaker and stronger** research study design
- **Samples**: are they large enough and diverse enough to help use generalize to all populations?
- Meta-analysis and systematic reviews of **multiple studies are generally stronger**
- Recommendations can be made of difference strengths – based on quality of evidence

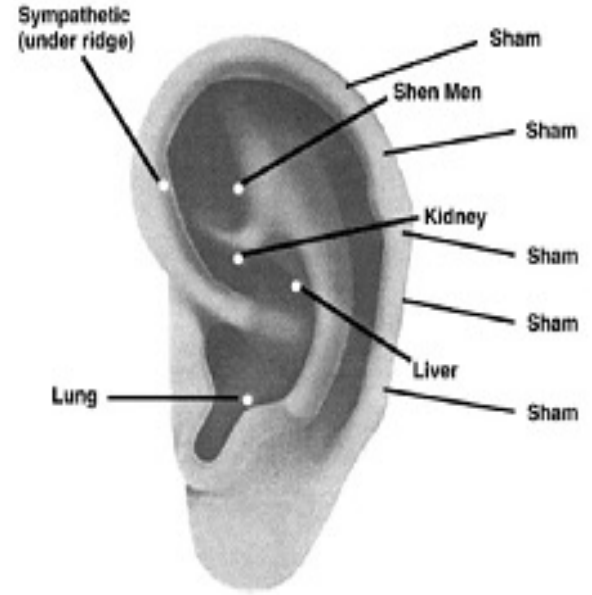
1: Some study methods are better than others: a story ……

- Early 2000's – **cohort study treatment for cocaine use**

'Treatment as usual' with Auricular Acupuncture vs Treatment as usual without Auricular Acupuncture : Treatment with Auricular Acupuncture helped reduce self reported withdrawal and cravings for cocaine

BUT

- Then **Randomized Control Trials (RCTs)** Auricular Acupuncture in 'right sites' vs 'sham sites'. Mixed results; Some RCTs 'right sites' no better outcomes than 'sham sites' BUT 'right sites and 'sham' Auricular Acupuncture both increased retention in treatment
- What was happening? Research found the whole experience was having a positive effect e.g. being calm, relaxed, feeling 'looked after' but it wasn't the actual acupuncture ……



- Cochrane Review 2006 "There is currently no evidence that Auricular Acupuncture is effective for the treatment of cocaine dependence."

Conclusion: More rigorous studies (RCTs) uncovered what was happening and why

Try and understand the evidence about impact have with intervention and why.

2: Some people will improve regardless of what we do; some people may not respond to a medication or intervention (and it is not their fault!)

Interventions including medicines only normally work on a proportion of people

Numbers Needed to Treat - NNT

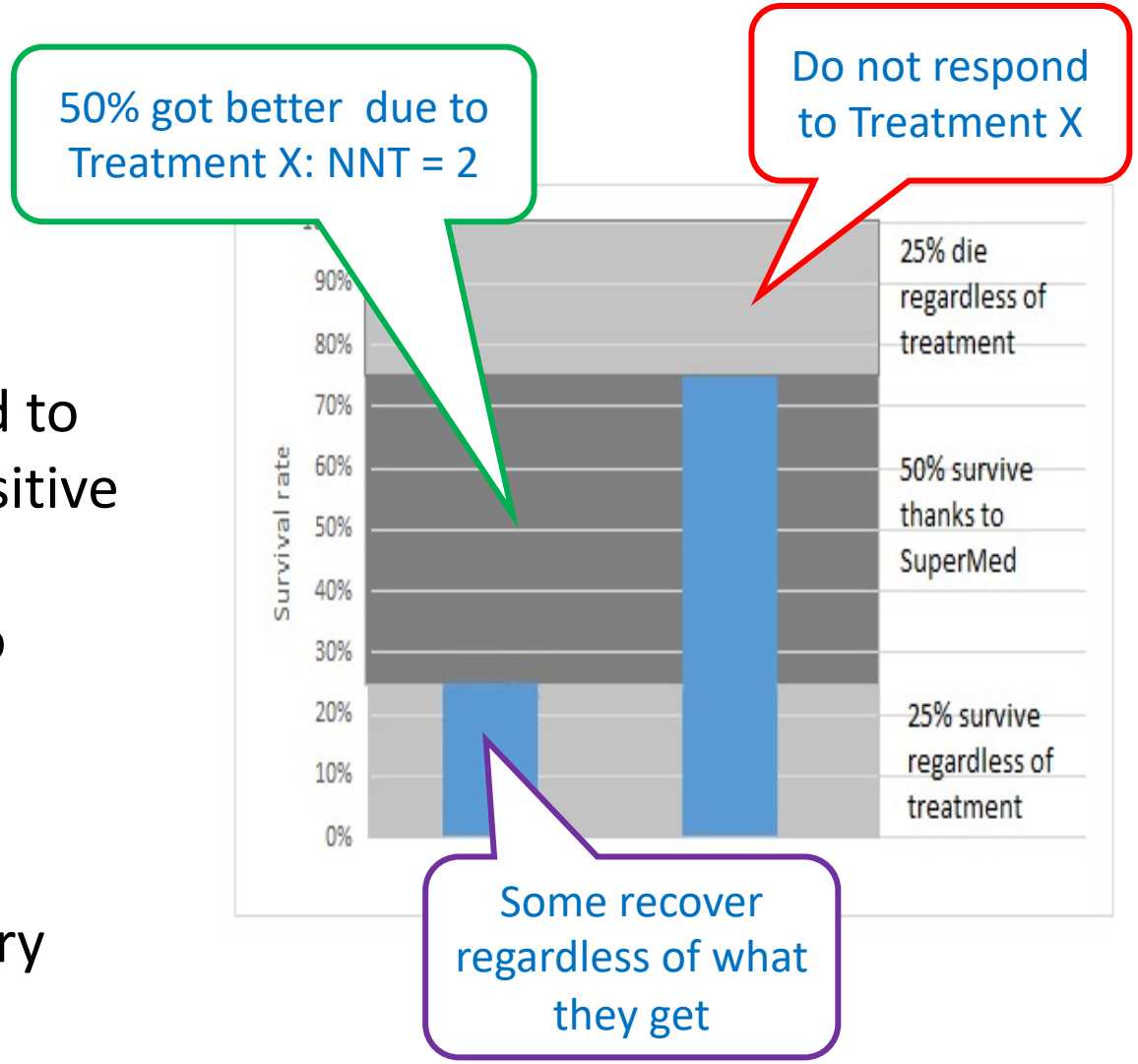
"NNT is the average number of patients who need to have the treatment for one of them to get the positive outcome" (NICE)

NNT calculated on numbers that got better due to treatment – in graph 50% so NNT = 2

NNT the closer to 1 the better

E.G. McCarty et al 2010. Methadone NNT 2.3

Don't blame the patient if they don't respond…. Try something else



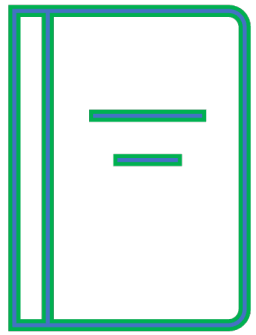
3: It is about more than scientific evidence….

Process of development of guidelines

Scientific evidence, ethics, regulations

Process of Agreement, Scientists, Patients, Practitioners,

Consultation and finalise



Bring together scientific evidence, ethics, country regulations, cost-effectiveness, expert and patient agreement

Then – can or should a recommended intervention be implemented in your system of country?

- Do you have the infrastructure?
- Do you have competent staff?
- Is it culturally relevant or need adaptation?

4: Effective in relation to what outcomes?

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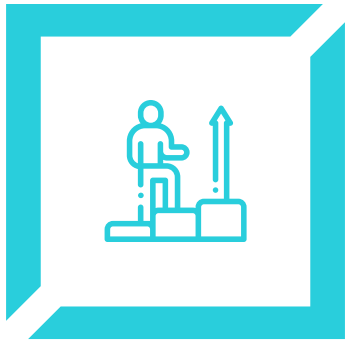
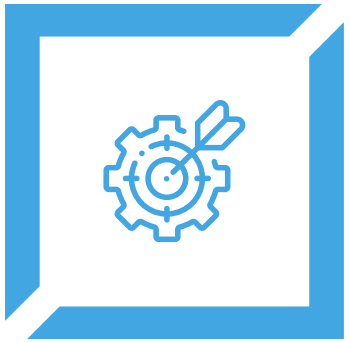
REDUCE RISK OF HARM



RETAIN IN TREATMENT

REDUCE DRUG USE



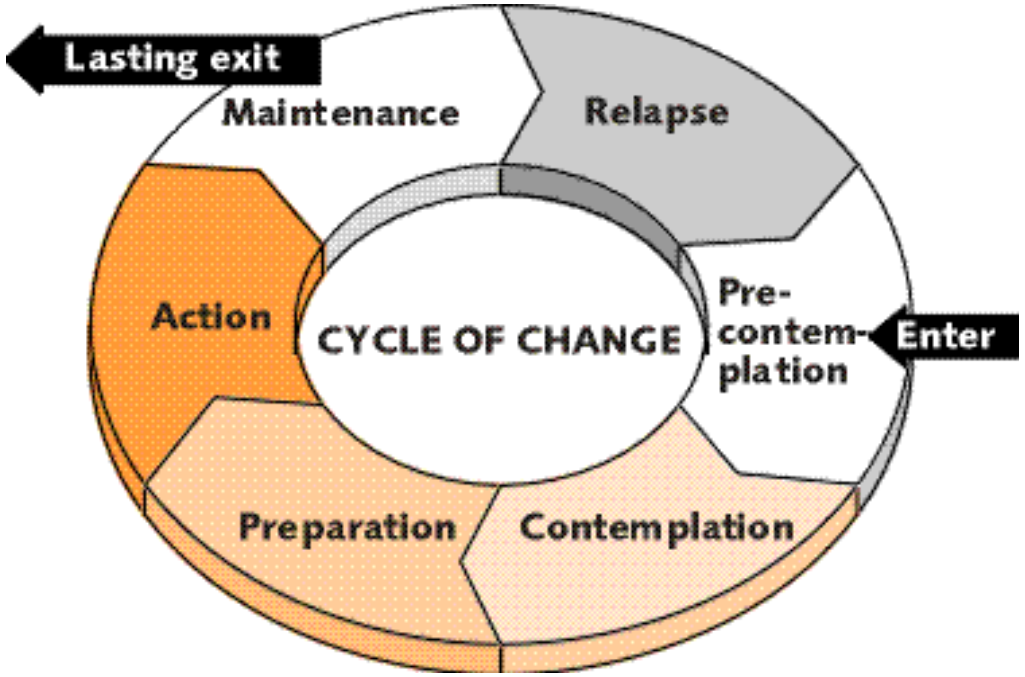
IMPROVE HEALTH OR SOCIAL FUNCTIONING

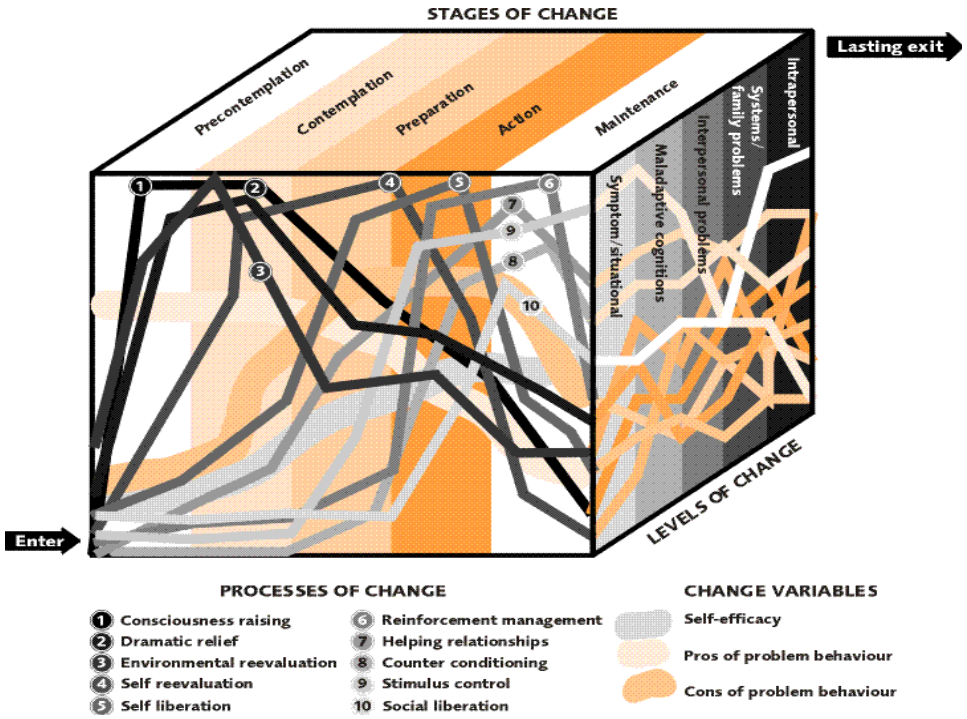
ABSTINANCE OR PREVENTION OF RELAPSE

Example – we may expect opioid agonist treatment to immediately stop all illicit opioid use, but it often takes time, and some people don't stop….

5: Client or Patient Motivation

Most of you will be familiar with Prochaska and DiClementi ‘Cycle of Change’. BUT this is a **model, a construct**. When authors checked real people against the model, reality was more complex ……..





Beware imposing simplistic models on complex issues

Some key points about Motivation

- The **ability of staff to motivate is often more powerful** than the **fluctuating motivation of clients** (e.g. Fiorentini et al 1999)
- It is very important **not to use a 'perceived lack of motivation' as barrier** to treatment or a reason 'not to treat' or a reason to do nothing. Staff can and should try and motivate
- Newer more **modern theories of motivation** may be applicable e.g. from smoking cessation – take advantage of 'any teachable moment' to increase motivation

6: Staff competence and Therapeutic Alliance

- Using evidence-based psychosocial interventions are is important but **critical to successful treatment is the competence of staff**, (knowledge, skills and attitude) **in interventions** and their **ability to build a therapeutic alliance** with a patient
- Where there is a **strong therapeutic alliance**, patients have better outcomes

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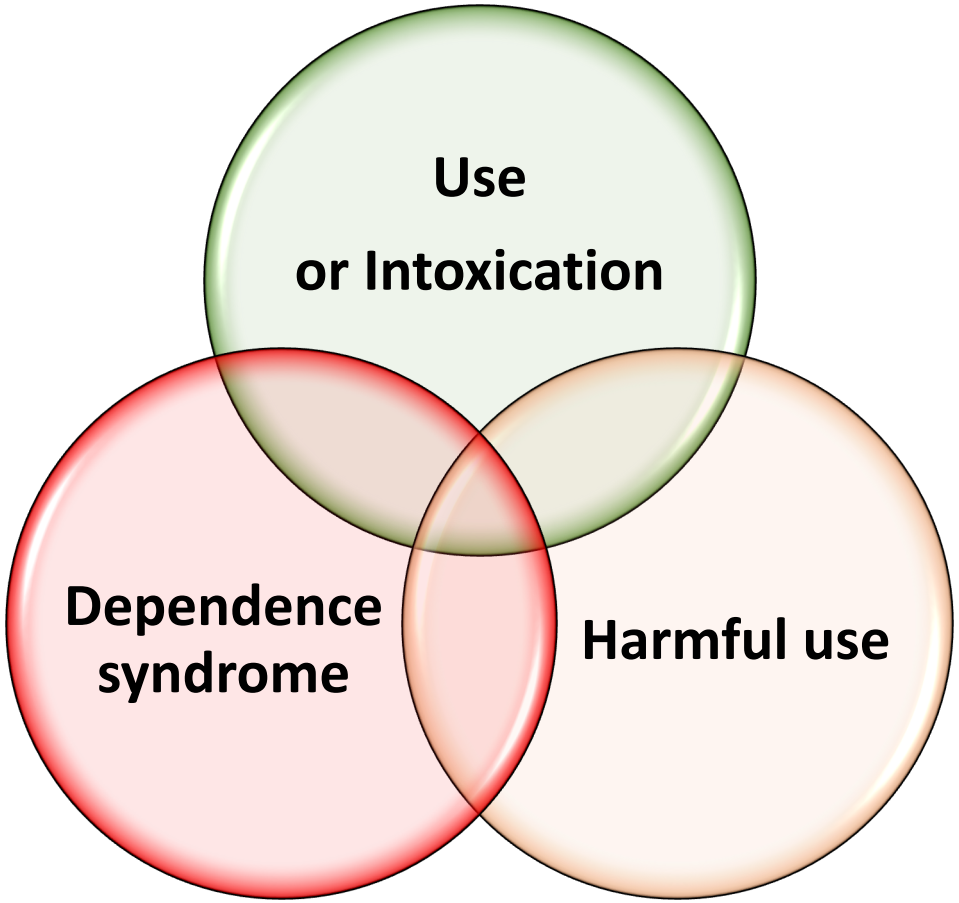
Let’s focus on evidence of effectiveness for some interventions for people with drug dependence

Drug use disorders disorders are spectrum disorders



- **A complex bio-psychosocial health disorder**. Especially dependence - impacts on brain and cognitive functioning, impulse control and ability to make decisions can be severely compromised
- **Severe dependence** is a **loss of control over drug use.**

  Cravings for drug and prevention of withdrawal symptom can drive drug use. Using drugs (and getting resources to acquire drugs) can becomes the priority even over family, health, basic needs,, beliefs, etc. Other priorities are compromised and even lost.

List of treatment interventions from 'the International Standards for the treatment of drug use disorders' (WHO/UNODC 2020)

Table 1. Suggested interventions at different system levels

System level	Possible interventions
Informal community care	• Outreach interventions • Self-help groups and recovery management • Informal support through friends and family
Primary health care services	• Screening, brief interventions, referral to specialist drug use disorder treatment • Continued support to people in treatment/contact with specialized drug treatment services • Basic health services including first aid, wound management
Generic social welfare	• Housing • [illegible] • Unconditional social support • Referral to specialized drug treatment [illegible], and other health and social services as needed
Specialized treatment services (outpatient and inpatient)	• Assessment • Treatment planning • Case management • Detoxification/withdrawal management • Psychosocial interventions • Medication-assisted treatment • Relapse prevention • Recovery management
Other specialized health care services	• Interventions by specialists in mental health services (including psychiatric and psychological services) • Interventions by specialists in internal medicine, surgery, paediatrics, obstetrics, gynaecology and other specialized health care services • Dental • Treatment of infectious diseases (including HIV, Hepatitis C and tuberculosis)
Specialized social welfare services for people with drug use disorders	• Family support and reintegration • Vocational training/education programmes • Income generation/micro-credits • Leisure time planning • Recovery management services
Long-term residential services for people with drug use disorders	• Residential programme to address severe or complex drug use disorders and comorbid conditions • Housing • Vocational training • Protected environment • Life skills training • Ongoing therapeutic support • Referral to outpatient/recovery management services

A. Assessment, treatment planning and review – case management

B. Psychosocial Interventions

C. Pharmacological interventions

D. Recovery management

How do you give someone the most appropriate evidence-based interventions that will give them the best chance of achieving their goals ?

1. Assessment and treatment planning

This is evidence-based and ethical

- **Base patients' treatment on an individual assessment:** substances used, severity of substance use disorder; individual circumstances, other needs or issues, strengths, what service use wants to achieve.
- **Tailor patients' treatment to meet their individual need** – main vehicle for this is a treatment plan, with achievable goals ,agreed with the patient, that is regularly reviewed. Regular meetings with a key worker or case manager.
- **Treatment planning and key work are the golden thread**

- World Health Organisation: **ALWAYS provide pharmacological interventions with PSI and in the context of a treatment plan (WHO)**

2. Psychosocial Interventions (PSI)

Consider what outcomes we can achieve with PSI:

‘the International Standards for the treatment of drug use disorders’ (WHO/UNODC 2020) PSI interventions have proved effective in: increasing treatment retention; increase adherence to medication; reducing drug use, promoting abstinence and preventing relapse.

We need to consider severity, types of drugs used and treatment journeys

- Different types of drug use require different types of PSI
- Different severity of drug use disorders require different PSI
- Different types of PSI may be needed at different points in a patients treatment journey – different at the beginning than towards the end

Psychosocial interventions from ‘the International Standards for the treatment of drug use disorders’ (WHO/UNODC 2020)

Also BI/EBI

Brief Interventions and Extended Brief Interventions

Using some of these techniques

CBT	Cognitive Behavioral Therapy
CM	Contingency Management
CRA	Community Reinforcement Approach
MI	Motivational Interviewing/ M E T
F	Family orientated approaches
MA	Mutual Aid and Self-help groups

Psychosocial Interventions by type and severity of drug use

CANNABIS

STIMULANTS

OPIOIDS

DRUG

KEY WORK

BI/EBI

MI/MET

CBT

FAMILY INTERVENTIONS

MUTUAL AID

INTERVENTIONS

Mild To Moderate.
1-6 Sessions BI/EBI
Moderate to Severe
Key work, 6-12 sessions EBI/CBT
Severe/complex
Keywork, 6-12 family ints, CM (stimulants) Mutual Aid, Aftercare

Not in Treatment
BI/EBI, OD prevention, N&S Exchange
Mild
1-6 Sessions BI/EBI
Moderate to Severe
Key work, more than 6 sessions MI/MET/CBT, if needed CM, 6 -12 family interventions,
If abstinent - at least 6 months of Mutual Aid & recovery support

SEVERITY/COMPLEXITY

Mild and Moderate
Out-patient
Severe or complex
In-patient/residential then out-patient

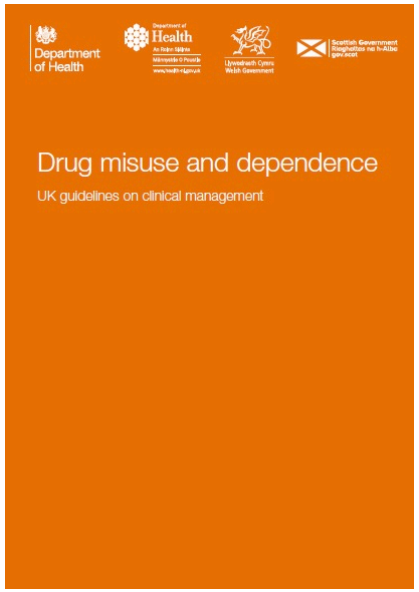
Mild/Moderate to Severe
Out-patient
Severe/complex
In-patient/residential then out-patient

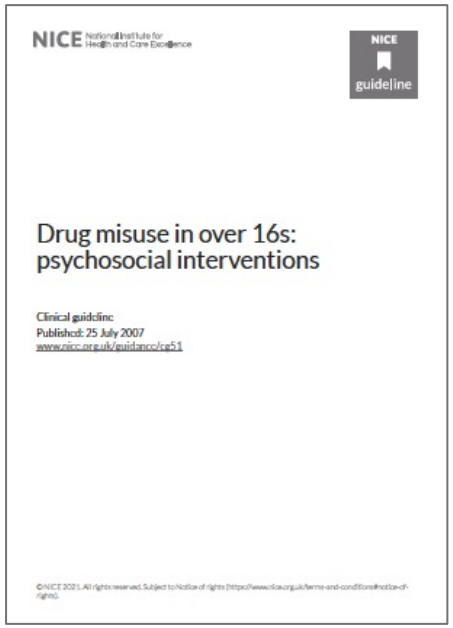
SETTING

Countries may make different recommendations on what evidenced-based interventions to use : example UK

UK found much stronger evidence for some PSIs in helping reduce or stop drug use – so made stronger recommendations to use these

- Formal Contingency Management
- Behavioural couple therapy
- Mutual aid





Weaker evidence for other PSI

CBT – cautioned against using CBT at times e.g. people who were stimulant dependent or in first few months after stimulant use

Motivational Interviewing: 'Spirit of MI' always useful (collaboration, active listening, acceptance etc) BUT formal MI only if ambivalent or low motivation

Note: many practitioners do not use formal PSI programmes e.g. CBT, CM. They may use PSI techniques – but these may not deliver the same effectiveness

3. Pharmacological interventions: Withdrawal management

All

SUBSTANCE

Help physically eliminate illicit drugs and alcohol from a person in a safe manner

OUTCOME

- **Opioids: ideally, stabilise before withdrawal/detox**
- **Use evidenced-based medication and regimes**
- **Relapse-prevention and psychological support is required after detox: High risk of relapse**
- **‘Dependence syndrome’ is not ‘cured’ by detox: people may experience cravings and have difficulty coping, regaining cognitive ability, rebuilding lives**
- **Enforced detoxification leads to relapse**
- **1 in 200 detoxed from opioids leaving prison die of overdose within 3 weeks of release (also rehab?)**

KEY POINTS

Pharmacological: Opioid Agonist Maintenance Treatment or Medication Assisted Treatment (MAT)

Opioids

SUBSTANCE

OUTCOMES

- Reduce cravings and withdrawal symptoms
- Reduce injecting
- Reduce or stop illicit opioid use
- Reduce crime
- Provide stability

KEY POINTS

- Methadone and buprenorphine
- Dose is very important – beware of underdosing, this sets patients up to fail
- Illicit opioid use may not stop quickly – or at all
- Length of opioid MAT depends on what people need: some need many years, others may want a period of stability then want to attempt detox then PSI and aftercare
- Enforced detox leads to relapse

Pharmacological interventions: Opioid relapse prevention and overdose reversal

OPIOIDS	OUTCOME	KEY POINTS
• **Opioid relapse prevention** • **Opioid overdose reversal medication**	**Naltrexone** – can prevent relapse in those motivated to stay opioid free **Naloxone** can reverse opioid overdose: game changer	**Naltrexone** only for those highly motivated and with community support to enable compliance **Naloxone** used by emergency services, treatment services, people who use drugs and their families **Depending on country legislation**

Recovery management

INTERVENTION

- Aftercare
- Recovery check -ups
- On-going support
- Mutual aid or peer support
- Community reintegration

OUTCOME

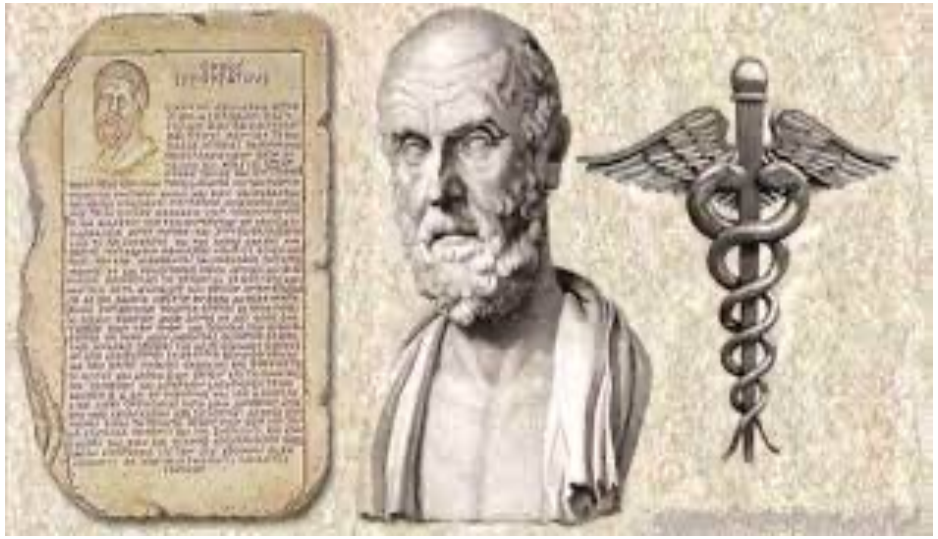
- Continued abstinence
- Reduced risk of relapse
- Build support Networks
- Rebuild lives

KEY POINTS

- People with moderate to severe dependence are at risk of relapse for up to 5 years
- Recovery check-ups and aftercare can reduce risk of relapse
- Mutual Aid such as 12-step support can significantly reduce the risk of relapse
- Community reintegration, work etc can reduce risk of relapse

Key take-home points

- Treatment is a **partnership with a patient** – **therapeutic alliance** is key, **staff competence** is key.
- Treatment should be **tailored to individual patients** need: substances used; severity of use; needs and strengths, patient goals – what they want; where patient is in their treatment journey
- We have a **'Toolbox' of science-based interventions**, that increase likelihood that patients may achieve their desired outcomes.
- We need these **interventions in every treatment system**: create individual treatment and recovery pathways.



Hippocratic oath
'First do no harm'

Treatment is not neutral

We can cause more harm than good if we are not ethical, evidence-based and patient-focused