Harm Reduction, Supervised Injection and Injectable Opioid Agonist Treatment

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Harm Reduction & Engagement

- Harm reduction creates opportunities for engagement that are critical for patient care.
- It targets marginalized populations who are not engaged with the health care system and for whom treatment is not an immediate realistic option.
- It can engage people in order to link them to health services. This fosters trust and creates the potential for accessing treatment.

Harm Reduction

Focuses on the harms from drug use rather than on the use itself. It does not insist on or object to abstinence and acknowledges the active role of the drug user in harm reduction programs.

Drug policies must be pragmatic. They must be assessed on their actual consequences, not on whether they send the right, the wrong or mixed messages.

Public Health Perspectives for Regulating Psychoactive Substances
The Health Officers Council of British Columbia

Harm Reduction

- Action through policy and programming
- Non-judgmental
- Works to alleviate harms and suffering
- Respects human dignity
- Pragmatic
- Maximize intervention options
- Incorporates drug users and people with lived experience

Harm Reduction

- Needle exchange
- Supervised Injection
- Condoms
- Seat belts
- Managed Alcohol
- Crack pipe distribution
- Injection supplies
- Low Barrier Housing
- Safe indoor space
- Take Home Naloxone

Harm Reduction

Making people uncomfortable does not decrease drug use

The creation of safer environments goes beyond safer use by individuals to a focus on determinants of the harms of drug use including drug policy, policing, income and housing policies.

Housing and harm reduction: What is the role of harm reduction in addressing homelessness?
Bernadette (Bernie) Pauly

A 'risk environment' framework envisages drug harms as a product of the social situations and environments in which individuals participate. It shifts the responsibility for drug harm, and the focus of harm reducing actions, from individuals alone to include the social and political institutions, which have a role in harm production.

T. Rhodes
Risk environments and drug harms: A social science for harm reduction approach
International Journal of Drug Policy, 20 (2009), pp. 193–201

BC Center on Substance Use OAT Guidelines

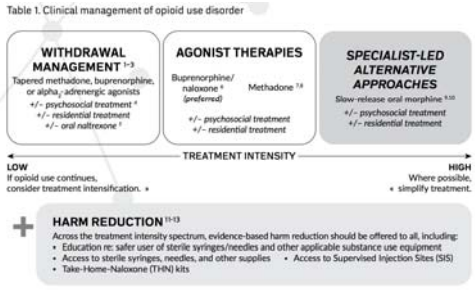
Table 1. Clinical management of opioid use disorder

WITHDRAWAL MANAGEMENT [1–3]
Tapered methadone, buprenorphine, or alpha$_2$-adrenergic agonists
+/- psychosocial treatment [3]
+/- residential treatment
+/- oral naltrexone [3]

AGONIST THERAPIES
Buprenorphine/naloxone [4] (preferred) Methadone [7,8]
+/- psychosocial treatment
+/- residential treatment

SPECIALIST-LED ALTERNATIVE APPROACHES
Slow-release oral morphine [9,10]
+/- psychosocial treatment
+/- residential treatment

TREATMENT INTENSITY

LOW
If opioid use continues, consider treatment intensification. *

HIGH
Where possible, * simplify treatment.

+ **HARM REDUCTION** [11-13]
Across the treatment intensity spectrum, evidence-based harm reduction should be offered to all, including:
- Education re: safer user of sterile syringes/needles and other applicable substance use equipment
- Access to sterile syringes, needles, and other supplies
- Access to Supervised Injection Sites (SIS)
- Take-Home-Naloxone (THN) kits


Drug and Alcohol Dependence

Review

Supervised injection services: What has been demonstrated? A systematic literature review

Supervised Injection

- Well studied – 75 articles in this meta-analysis (85% are from Vancouver)
- Demonstrated to
  - Promote safer injection conditions
  - Enhance access to primary care
  - Reduce overdose frequency
  - Do not increase injection
  - Do not increase drug trafficking
  - Do not increase crime
  - Reduce levels of public drug injections
  - Reduce dropped syringes

Supervised Injection

- https://vimeo.com/52037252

Creating a Supervised Consumption Site

- Safe place with flow through
- Sink for washing hands
- Metal tables for easy cleaning
- Mirrors for monitoring people (and make up)
- A good play list
- Naloxone and oxygen

Staffing a Supervised Injected Site

- RNs, LPNs, people with lived experience, mental health workers
- Primary care
- Think about safety, patient volume, and overdose response
- At Insite we have up to 12 overdoses per day (all non-fatal!)

Services at a Supervised Injection Site

- Wound care
- Condoms
- Referrals to detox – Onsite
- Referrals for housing
- Methadone/buprenorphine starts

Injection Supplies

Welcoming and Safe

Other Considerations

- Hours and wait times
- Women and trans safety
- How to deal with violence, how to bar people from the service
- How to integrate into a neighbourhood
- Culturally safe care

Worldwide, there has never been an overdose death in a supervised injection site since they have start started being studied

Myths about addiction

People choose to be addicts; therefore addicts are to blame for their addiction and corrupt lifestyles.

Services for addicts attract addicts, promote and spread addictive behaviour.

Harm reduction addiction services (supervised injection facilities and needle exchanges) promote addiction and keep people on drugs.

The establishment of North America's first state sanctioned supervised injection facility: A case study in culture change
Dan Small, Anita Palepu, Mark W. Tyndall
International Journal of Drug Policy
Volume 17, Issue 2, March 2006, Pages 73–82

Spikes on Bikes

"True compassion is more than flinging a coin to a beggar. It comes to see that an edifice which

produces beggars needs restructuring."

Martin Luther King, Jr.

Injectable Opioid Agonist Treatment

Non toxic drug consumption in a safe space

Known substance, known dose, clean supplies

"For every complex problem there is an answer that is clear, simple, and wrong."

H. L. Mencken

A bit of history

In the UK they have been prescribing heroin for opioid use disorder for more than a century as take home doses.

Swiss National Clinical Study

- First trial started in Switzerland in 1994
- Has been standard treatment for opioid use disorder in Switzerland since 1998
- This is in the context of a very robust methadone system of care – very low barrier and available.

Cochrane Review 2011

"Heroin maintenance for chronic heroin-dependent individuals"

Marica Ferri, Marina Davoli, Carlo A. Perucci

Objectives:

To compare heroin maintenance to methadone or other substitution treatments for opioid dependence regarding: efficacy and acceptability, retaining patients in treatment, reducing the use of illicit substances, and improving health and social functioning.

Main Results

- Eight Randomized Control Studies involving 2007 patients met the inclusion criteria.
- Previous treatment failure for opioid use disorder
- Five studies compared supervised injected heroin plus flexible dosages of methadone treatment to oral methadone only and showed that heroin helps patients to remain in treatment
- Maintenance with supervised injected heroin has a not statistically significant protective effect on mortality
- There is a greater risk of adverse events related to study medication
- Results on criminal activity and incarceration were not possible to be pooled

Main Results

- Social functioning improved in all the intervention groups with heroin groups having slightly better results.
- If all the studies comparing heroin provision in any conditions vs any other treatment are pooled the direction of effect remain in favour of heroin.

HAT (heroin assisted therapy)

- For people with severe opioid use disorder who have tried oral treatment and had ongoing drug use or negative consequences
- The patient attends clinic 2-3 times per day for a supervised injection of heroin
- They are given a dose of methadone at night in order to avoid withdrawal overnight between doses

- Average time in HAT is 3 years
- In general, patients stabilize on a dose and remain on that dose for the duration, or taper their dose
- On average, this maintenance dose is about half of the program maximum
- Patients usually transition to oral treatment, but many successfully taper to achieve no opioid use

Public safety

- There have been no detrimental effects on public safety, or disorder from HAT
- People enrolled in HAT decrease criminal behaviour

Why give people free heroin?

- This is just one end of the continuum of care for opioid use disorder
- The cost of not treating addiction is almost always more than the cost of not treating it.
- Cost benefit analysis of HAT have shown it to be more economical than no treatment

HAT

- Provides connection to primary care
- Multiple interactions with nurses each day
- Can be embedded in a interdisciplinary team with social work, pharmacist, nurse, and addiction specialist
- Decreases the illicit market of opioids

Cochrane Conclusions

The available evidence suggests an added value of heroin prescribed alongside flexible doses of methadone for long-term, treatment refractory, opioid users, to reach a decrease in the use of illicit substances, involvement in criminal activity and incarceration, a possible reduction in mortality; and an increase in retention in treatment. Due to the higher rate of serious adverse events, heroin prescription should remain a treatment for people who are currently or have in the past failed maintenance treatment, and it should be provided in clinical settings where proper follow-up is ensured

NAOMI study

- HAT in the Canadian context
- Published 2009 NEJM
- Randomized Control trial
- IV heroin vs oral methadone
- 251 participants in Vancouver and Montreal

NAOMI Study Results

- Retention to treatment:
  - Diacetylmorphine arm (88%)
  - Methadone (54%)
- Decrease in illegal activities:
  - Diacetylmorphine (67%)
  - Methadone (47.7%)
- The amount spent on drugs both decreased by almost half. In fact, participants once spending on average $1,200 USD per month on drugs reported spending between $320-$400 USD per month by the end of the treatment phase.

NAOMI Study Results

- A small portion of the NAOMI patients received injectable hydromorphone rather than injectable diacetylmorphine .
- At the end of the trial – people were not able to identify the substance they had been using during the trial

The Study to Assess Longer-term Opioid Medication Effectiveness (SALOME)

- A non-inferiority study looking at hydromorphone and diacetylmorphine
- Double blind RCT with 202 participants in Vancouver, BC
- Two phases – an oral hydromorphone stage that was abandoned due to futility

SALOME

- Outcomes:
  - Drug use (self report and urine)
  - Retention to care (about 80% for both)
- IV hydromorphone was found to be non-inferior to diacetylmorphine

- **CONCLUSIONS AND RELEVANCE** This study provides evidence to suggest non-inferiority of injectable hydromorphone relative to diacetylmorphine for long-term opioid dependence. In jurisdictions where diacetylmorphine is currently not available or for patients in whom it is contraindicated or unsuccessful, hydromorphone could be offered as an alternative.

Adverse Events

Pooled data:

- Respiratory depression
  - 1:6000 injections
- Cellulitis or abscess
  - 18:85,451 injections

During the Salome trial:

- Seizure
  - 11 in the diacetylmorphine arm
- Overdoses
  - 3 in hydromorphone arm, 11 in diacetylmorphine arm

My own practice

- Salome was published in May 2016
- The researcher came by my clinic and asked if I would consider prescribing iOAT
- I was interested, but nervous

iOAT = injectable opioid agonist therapy

Updated terminology from HAT (Heroin assisted therapy)

Can use diacetymorphine or hydromorphone

September 2016 I began an iOAT program that was embedded in one of our low barrier housing projects.

And my patient got better

PHS current iOAT plan

- Embedded in housing
- Embedded in our overdose response room
- With a community pharmacy partner

- Plan for 170 patients over the next 6 months

Some things to think about for Canada

- This research was done before widespread buprenorphine or SROM use for opioid use disorder.

- This research can't be applied to the issue of drug policy and law

Conclusion

- Harm reduction is a pragmatic person based solution to avoid the harms of drug use
- Harm reduction, including supervise consumption sites save money and decrease death and decrease HIV
- Injectable Opioid Agonist Treatment is an evidence based tool to use to treat opioid use disorder