NEWS ON OPIOID TREATMENT

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Disclosure of Interests

Present clinical cases and talks related to:
Reckitt Benckiser
Jansen
Introduction

Epidemiology

Pharmacological approach
  • OST (present and future)

Psychosocial approach

Dual pathology approach (addiction + psychiatric illness)

Physical disease approach

Integrating harm reduction
PARADIGMS OF AGING AND BEING A DRUG USER

Addiction
- Increase in income and duration thereof
- Interaction with treatments
- More severe and prolonged withdrawal
- Tendency to chronicity
- Guilt and refusal to be still consuming

Mental Health
- Acceleration of cognitive deterioration
- Aggravation of psychiatric pathologies
- Increased suicidal risk
- Sleep disturbance

Physical Health
- Falls
- Cardiorespiratory pathology
- Sedation
- Psychomotor impairment
- Infection diseases, etc.

Social
- Poverty, instability in housing, lack or low pensions, lack of security in medical attention, social network that does not exist or is reduced to the world of consumption.
- Adaptation of unhealthy habits (Driving in intoxication or without a belt, High nicotine consumption)

Affective and emotional
- Isolation
- Loneliness
- Loss of the meaning of life
- Loss of affective bonds
EPIDEMIOLOGY
TRENDS IN PERCENTAGE OF CLIENTS IN TX BY PRIMARY DRUG
Top 20 drugs recorded in ER in 2016

Top 20 drugs recorded in emergency presentations in sentinel hospitals in 2016

Drug identifications

Established illicit drugs
NPS (new psychoactive substances)
Benzodiazepines
Other medicines
Other opioids
Unknown drug

NB: Results of 4,874 emergency presentations in 19 sentinel sites in 13 European countries.
OPIOIDS TRENDS IN EU

Opioids

High-risk opioid users 1.3 million

Drug treatment requests

Principal drug in about 36% of all drug treatment requests in the European Union

628 000 opioid users received substitution treatment in 2016

Fatal overdoses

36%

84%

Opioids are found in 84% of fatal overdoses
Treatment entrants citing opioids as primary drug
### Other Opioids Than Heroin in Opioid Users

<table>
<thead>
<tr>
<th>Opioid</th>
<th>Number</th>
<th>Quantity</th>
<th>Number of countries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Kilograms</td>
<td>Litres</td>
</tr>
<tr>
<td>Methadone</td>
<td>1245</td>
<td>21.75</td>
<td>1.84</td>
</tr>
<tr>
<td>Buprenorphine</td>
<td>3,523</td>
<td>1.94</td>
<td>0.0005</td>
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<tr>
<td>Tramadol</td>
<td>3,553</td>
<td>2.03</td>
<td></td>
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<tr>
<td>Fentanyl derivatives</td>
<td>738</td>
<td>1.55</td>
<td>1.2</td>
</tr>
<tr>
<td>Morphine</td>
<td>225</td>
<td>11.08</td>
<td></td>
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<tr>
<td>Opium</td>
<td>335</td>
<td>327.5</td>
<td></td>
</tr>
<tr>
<td>Codeine</td>
<td>339</td>
<td>20.65</td>
<td></td>
</tr>
<tr>
<td>Oxycodone</td>
<td>12</td>
<td>0.005</td>
<td></td>
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</tbody>
</table>
LEGAL TRENDS RELATED TO OPIOID MARKET
HEROIN USERS ENTERING TREATMENT

**Characteristics**
- 20% Female
- 80% Male
- Mean age at first use: 23 years
- Mean age at first treatment entry: 34 years

**Frequency of use in the last month**
- Mean use: 6 days per week
- Daily: 63%
- 2 to 6 days per week: 13%
- Once a week or less: 7%
- Not used in last 30 days: 16%

**Route of administration**
- Injecting: 14%
- Smoking/inhaling: 12%
- Eating/drinking: 38%
- Sniffing: 1%
- Other: 35%

**Trends in first-time entrants**
- Data for Italy, Spain, Germany, United Kingdom, and Other countries.
- Trends based on 25 countries.
- Only countries with data for at least 9 of the 11 years are included in the trends graph.
- Missing values are interpolated from adjacent years.

NB: Apart from trends, data are for all treatment entrants with heroin as primary drug. Data for Germany are for entrants with ‘opioids’ as primary drug. Trends in first-time entrants are based on 25 countries. Only countries with data for at least 9 of the 11 years are included in the trends graph. Missing values are interpolated from adjacent years. Due to changes in the flow of data at national level, data since 2014 for Italy is not comparable with earlier years.
Injecting users by drug

Injecting among first-time treatment entrants with heroin, cocaine or amphetamines as primary drug: percentage reporting injecting as main route of administration

Percent

Cocaine
Amphetamines
Heroin

NB: Trends are based on the 21 countries with data for at least 9 of the 11 years.
Fentanyl derivatives found in drug market

Joint investigations and risk assessment

Following on from the two joint investigations on acryloylfentanyl and furanylfentanyl that were conducted by the EMCDDA and Europol in 2016, a further five fentanyl derivatives were investigated in 2017 after deaths were reported through the EU Early Warning System. The substances (4-fluoroisobutyrylfentanyl, tetrahydrofuranylfentanyl, carfentanil, methoxyacetylfentanyl, cyclopropylfentanyl) were involved in more than 160 deaths, many of which were attributed directly to these substances. Overall, five of these seven substances were also formally risk-assessed by the EMCDDA during 2017 (Table 1); the remaining two substances will be assessed in 2018. To date, acryloylfentanyl and furanylfentanyl have been subject to control measures at EU-level because of the risks they pose to public health in Europe.

Table 1. Key findings from the risk assessments of five fentanyl derivatives

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Carfentanil</th>
<th>Furanylfentanyl</th>
<th>Acryloylfentanyl</th>
<th>4F-IBF</th>
<th>THF-F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common name</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical structure</td>
<td><img src="..." alt="Structure" /></td>
<td><img src="..." alt="Structure" /></td>
<td><img src="..." alt="Structure" /></td>
<td><img src="..." alt="Structure" /></td>
<td><img src="..." alt="Structure" /></td>
</tr>
<tr>
<td>Formal notification to the EU Early Warning System</td>
<td>12 February 2013</td>
<td>3 November 2015</td>
<td>7 July 2016</td>
<td>26 August 2016</td>
<td>23 December 2016</td>
</tr>
<tr>
<td>Number of deaths</td>
<td>61</td>
<td>23</td>
<td>47</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>Number of countries where associated deaths occurred</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Number of law enforcement seizures</td>
<td>801</td>
<td>143</td>
<td>162</td>
<td>24</td>
<td>53</td>
</tr>
<tr>
<td>Number of countries where it has been seized (EU, Turkey and Norway)</td>
<td>7</td>
<td>14</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>
**Drug induced deaths**

### Characteristics
- 21% females
- 79% males

### Mean age at death
- 39 years

### Deaths with opioids present
- 78%

### Age at death
- <25: 10%
- 25-39: 43%
- 40-64: 44%
- >64: 4%

### Trends in overdose deaths

### Number of deaths
- **7929** EU
- **9138** EU + 2

**NB:** Data refer to EU Member States, Turkey and Norway (EU + 2).
PHARMACOLOGICAL APPROACH
OST (PRESENT AND FUTURE)
CLIENTS IN OPIOID SUBSTITUTION TREATMENT

Population

628 000 EU
636 000 EU + Norway

26%  74%

Age distribution

Trends in the number in substitution treatment

Type of medication

Treatment duration

Methadone 63%
Buprenorphine 35%
Slow-release oral morphine 2%
Diacetylmorphine <1%
Other <1%

Months
<12 22%
12-24 19%
25-60 56%
61-120 2%
>120 1%

NB: Only countries with data for at least 8 of the 11 years are included in the trends graph. Missing values are interpolated from adjacent years.
Coverage of OST by % of high risk opioid users

Coverage of opioid substitution treatment (percentage of estimated high-risk opioid users receiving the intervention) in 2016 or most recent year and in 2007/8

Number of countries per coverage level (2016)
- High (>50 %): 9
- Medium (30–50 %): 5
- Low (<30 %): 5
- Coverage not calculable: 11

NB: Data displayed as point estimates and uncertainty intervals.
Proportion of clients in OST by medication
PRINCIPLES OF OPIOID SUBSTITUTION TREATMENT

- Opioid substitution treatment (OST) employs strategies to control rather than prevent drug use in attempts to limit the incidence of adverse events. This involves prescribing controlled amounts of longer acting.
- Appropriately prescribed and dosed pharmacological maintenance treatment of opioid dependence is associated with:

  **Reduced of:**
  - illicit drug use,
  - euphoria,
  - adverse consequences of opioid use (e.g. HIV infection, overdose)
  - opioid withdrawal.

  **Increased of:**
  - treatment retention,
  - opioid abstinence,
  - psychosocial functioning and
  - facilitated treatment of other co-morbid medical and psychiatric conditions

- Medication interactions, side effects and risks of diversion need to be considered
OST BY CITY AND BY DRUG PRESCRIBED

Coverage of substitution treatment

Principal opioid substitution drug prescribed

- Buprenorphine
- Methadone
- Slow-release oral morphine
- Buprenorphine and methadone equally prescribed
AVAILABLE AGENTS FOR MAINTENANCE TREATMENT OF OPIOID DEPENDENCE

**Full agonists**
- Methadone
- Levo-acetyl-alpha-methadol (LAAMa)+
- Morphine sulfate
- Heroin

**Partial agonists**
- Buprenorphine
- Buprenorphine/naloxone
- Buprenorphine film
- Buprenorphine depot, implant

**Antagonists**
- Naloxone
- Naltrexone+
- Depot naltrexone
Methadone hydrochloride (1965) is a synthetic opioid agonist acts on μ-opioid receptor.

- Peak levels are in 2–6 hours after oral ingestion, and remains variably receptor bound for 24–48 hours.
- Is metabolized by the hepatic cytochrome P450 (CYP)3A4, medication interactions need to be considered.
- Methadone was superior to non-opioid agonist treatment options in: treatment retention, reduction of heroin use, decreases in criminal behaviour, HIV risk behaviour and HIV seroconversion among injection drug users.
METHADONE

- Variability in clinical responses to methadone and dose requirements depend on age, diet, metabolism, protein binding, medications, genetic variants, and other substance use, etc.

- Side effects are: constipation, excess sweating, drowsiness and decreased libido, male secondary hypogonadism, decreased vit D levels, and bone mineral density, risk for QT interval prolongation; risk of overdose among opioid naïve individuals with incorrect use.

- The appropriate maintenance dose of methadone is highly individualized; daily doses of 80–120 mg are common and are more likely to produce narcotic blockade.

- Trial of high-(80–100 mg) versus moderate-dose methadone (40–60 mg) showed that patients with high-dose methadone had a greater reduction in illicit opioid use.
**LEVOMETHADYL ACETATE HCl (LAAM)**

- Is a long-acting opioid agonist (1993) and removed in 2001 and 2003 from the European and US markets over concerns of cardiac QT prolongation and torsades de pointes.
- LAAM’s long half-life, can be dosed three times weekly, compared with methadone, which is dosed daily.
- Recent data confirms prior concerns over corrected QT (QTc) prolongation and risks for serious cardiac side effects with the use of LAAM.
**Buprenorphine**

- Buprenorphine is a high-affinity partial agonist on μ-opioid receptor and an antagonist of κ-opioid receptor.
- Is metabolized by the CYP3A4 system, long half-life of 24–60 hours.
- Two formulations: buprenorphine and a buprenorphine/naloxone combination, both tablet or film.
- Due to its partial agonist properties, there is a ceiling to common agonist effects including analgesia and less respiratory depression.
BUPRENORPHINE

- The efficacy has been established is safe and effective alternative to methadone (equivalence dosis at 8mg/day to methadone 60mg/day).
- The usual effective dose of buprenorphine or buprenorphine/ naloxone is between 8 and 24mg daily, expressed as buprenorphine concentration.
- Side effects include headache, constipation, sweating, and decreased libido. As a thebaine derivate there is a risk for elevated liver transaminase values, specially in patients with chronic hepatitis C infection.
- Respiratory depression and overdose have been reported in patients abusing benzodiazepines while receiving buprenorphine.
Diacetylmorphine (heroin)

- Patients with history of failing prior outpatient treatment, generally with methadone (Switzerland, the Netherlands, and Germany).
- Oral (inmediated release or oral extended release) or injected prescribed heroin from two to three times a day.
- Heroin prescription for long-term in treatment-refractory opioid users show effects in better health status, less treatment dropout, reduced consumption of other psychotropic substances and other social improvements.
- Adverse events, including infections (related to IV group), headache and overdose, were consistently more frequent in the heroin group (Ferri, M. et al. 2010).
- The review concluded that heroin prescription should remain as a last resort treatment for people who currently or have previously failed other maintenance treatments. In a limited number of countries, heroin is available to treat heroin dependence in highly supervised settings (Ferri, M. et al. 2010).
MORPHINE SULPHATE

- Acts on μ–δ-opioid (Mu-Delta) receptor. Oral administration, levels peak in approximately 30 min is metabolised primarily in the liver and approximately 87% of a dose of morphine is excreted in the urine within 72 h.
- SROM dose is approximately 791 ± 233 mg/day (methadone 103 ± 30 mg/day). Methadone doses can be converted to SROM at a mean ratio of 1:7.7 ± 1.3 and SROM doses to methadone at a mean ratio of 7.5 ± 2.4:1.
- SROM seemed to be equal than methadone for severity of dependence, or mental health/social functioning, and show less severe opiate withdrawal symptoms in comparison.
- Morphine show in some studies less cravings, depressive symptoms, physical complaints and anxiety symptoms.
- Quality of life resulted in no significant difference or a worst outcome than in those taking methadone and buprenorphine.
**MORPHINE SULPHATE**

- Medical adverse events were consistently higher in people in SROM than in the comparison groups.
- QTc-interval associated with methadone was significantly longer than SROM.
- Higher treatment satisfaction, fewer cravings for heroin, and lower mental stress were reported with SROM.
- SROM is an effective and well tolerated long-term maintenance treatment for opioid dependence with a beneficial risk profile compared to methadone regarding cardiac effects and supports its clinical utility (Hämig R, et al. 2014).
NALTREXONE

- Antagonist derivative of naloxone with affinity for the μ-opioid receptor, 20 times more potent than that of morphine thereby displacing bound opioid agonists and blocking the effects of exogenously administered opioids.
- Peak plasma concentrations are achieved within 1 hour, and antagonist effects can last for up to 72 hours.
- Locks the euphoric effects of opioids diminishing the reinforcing effects of heroin and pharmaceutical opioids acting on the association between conditioned stimuli and opioid use.
- No addictive potential or tolerance.
- Primary opioid antagonist used for maintenance treatment of opioid dependence.
NALTREXONE

- Was no better than placebo or no pharmacological treatments with regard to retention in treatment, use of the primary substance of abuse or side effects.
- Dosages of 50, 100 and 150mg/day of naltrexone can block the effect of 25 mg of intravenous heroin for 24, 48 and 72 hours, respectively.
- Standard dosages of naltrexone are 50mg/day, or 100 mg on Monday and Wednesday and 150mg on Friday.
- Naltrexone undergoes both hepatic and extra-hepatic metabolism. It is metabolized by CYP3A but is not known to be an inducer or inhibitor of this enzyme.
- Potential side effects of naltrexone include epigastric pain, nausea, headache, dizziness, nervousness, fatigue, insomnia.
- Large dosages (up to 300 mg/day) may be hepatotoxic.
**SUSTAINED-RELEASE BUPRENORPHINE**

- Sustained-release formulations of buprenorphine have been developed in part to address concerns about adherence and diversion.
- In the largest study to date, an implantable formulation of buprenorphine designed to provide 6 months of medication was compared with placebo implants.
SUSTAINED-RELEASE BUPRENORPHINE

- Treatment retention was longer in patients who received buprenorphine implants. However, subjects in both treatment arms required supplemental sublingual buprenorphine. This indicates that the implants provided less than adequate doses of buprenorphine.

- The clinical utility of this agent will likely depend on patient acceptance, demonstrated utility in patients with poor adherence and the extent of diversion and abuse of sub-lingual formulations.
Other OST on the Way

- Slow-release buprenorphine implants are a promising approach aimed.
- Vivitrol (injectable naltrexone) is a long-acting opioid antagonist—that it blocks opioid receptors and thus counteracts the effects of opioids—that comes in the form of an extended release depot.
- Alternative agonists such as morphine, dihydrocodeine, hydromorphone, and injectable diacetylmorphine are either available in other countries as second-line treatment or are being evaluated for use.
- Evidence of the effectiveness and cost-effectiveness of injectable diacetylmorphine or heroin maintenance as a second-line treatment is particularly strong, it has received little consideration because of the drugs’ controlled status.
- These options need to be integrated into certification programs and clinical guidelines and made available alongside existing treatments, according to clients’ need.
FUTURE STUDIES FOR OST

- Other new studies are working on memantine use with OST
- Tramadol for OST
- Tapering from methadone or buprenorphine maintenance treatment.
Psychosocial approach
INTEGRAL APPROACH

“...increased importance of knowing the patient as a person in an era in which precision medicine sometimes coopts the larger meaning of personalized care....”.

Combination of community and family practice and hot spotting is an appealing strategy for amplifying screening efforts.

Interdisciplinary behaviorally focused model for medication-assisted treatment of opioid use disorder (Stange K, 2018)

Evidence on effectivity on the use of psychotherapy in adherence to OST.
FUTURE CHALLENGES

- Expanding Treatment To Office-Based Settings
- Financial Barriers To Treatment
- Opioid Detoxification
- New Tools To Tackle Opioid Dependence
- Recommended Policy Changes
Substance Abuse Recovery after Experiencing Homelessness and Mental Illness: Case Studies of Change Over Time

Benjamin F. Henwood, PhD, MSW1,2, Deborah K. Padgett, PhD1, Bikki Tran Smith, M.A.1, and Emmy Tiderington, MSW1

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1Silver School of Social Work, 838 Broadway, 3rd Floor, New York Recovery Study, New York, NY 10003, Ph: 212-992-9733, Fax: 212-995-4173

2University of Southern California, School of Social Work, Montgomery Ross Fisher Building, Los Angeles, CA 90089-0411, Ph: 213-740-2711

DUAL PATHOLOGY APPROACH
(ADDICTION + PSYCHIATRIC ILLNESS)
There are many reasons why dual diagnosis has emerged as a significant clinical issue during the past decade, both in the UK, and internationally, and there is equivocal evidence that there are increased rates of violence and offending among this group, higher rates of homelessness (when compared to those with either single diagnosis), a greater array of pressing social needs, and physical health problems including HIV and Hepatitis C, higher rates of suicide, higher service costs, and major difficulties in engaging and retaining those with a dual diagnosis in any form of service contact (let alone traditional treatment programme) (Smith and Hucker 1994).
Impact of Co-Occurring Psychiatric Disorders on Retention in a Methadone Maintenance Program: An 18-Month Follow-Up Study

Mònica Astals, Laura Díaz, Antònia Domingo-Salvany, Rocio Martín-Santos, Antoni Bulbena, and Marta Torrens

*Int. J. Environ. Res. Public Health 2009, 6, 2822-2832:

Table 1. Cont.

<table>
<thead>
<tr>
<th>Non-SUD co-occurring diagnoses</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Only Axis I</td>
<td>32 (52.5)</td>
</tr>
<tr>
<td>Only Axis II</td>
<td>22 (36.1)</td>
</tr>
<tr>
<td>Both Axis I + II</td>
<td>7 (11.5)</td>
</tr>
<tr>
<td>Major depression</td>
<td>9 (14.8)</td>
</tr>
<tr>
<td>Induced depression</td>
<td>5 (8.2)</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>5 (8.2)</td>
</tr>
<tr>
<td>Panic w/without agoraphobia</td>
<td>12 (19.7)</td>
</tr>
<tr>
<td>Social phobia</td>
<td>10 (16.4)</td>
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<tr>
<td>Simple phobia</td>
<td>8 (13.1)</td>
</tr>
<tr>
<td>Post traumatic stress</td>
<td></td>
</tr>
<tr>
<td>Obsessive compulsive</td>
<td>4 (6.6)</td>
</tr>
<tr>
<td>Bulimia</td>
<td>1 (1.6)</td>
</tr>
<tr>
<td>Antisocial Personality Disorder</td>
<td>16 (26.2)</td>
</tr>
<tr>
<td>Borderline Personality Disorder</td>
<td>13 (21.3)</td>
</tr>
</tbody>
</table>

Co-occurring diagnoses: co-occurring substance use [abuse or dependence] and mental disorders; Only SUD: Only substance use disorders.
Patients with OD under an opiate replacement therapy

<table>
<thead>
<tr>
<th>Current replacement therapy, N=619, N (%)</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buprenorphine</td>
<td>3 (0.5)</td>
</tr>
<tr>
<td>Buprenorphine / Naloxone</td>
<td>29 (4.7)</td>
</tr>
<tr>
<td>Heroin</td>
<td>4 (0.8)</td>
</tr>
<tr>
<td>Methadone</td>
<td>580 (93.6)</td>
</tr>
<tr>
<td>Morphine</td>
<td>3 (0.5)</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Phase of treatment with the current replacement therapy, N= 619, N (%)</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Induction</td>
<td>29 (4.7)</td>
</tr>
<tr>
<td>Maintenance</td>
<td>504 (81.4)</td>
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<tr>
<td>Retirement</td>
<td>86 (13.9)</td>
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<table>
<thead>
<tr>
<th>Administration mode, N=620, N (%)</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>590 (95.0)</td>
</tr>
<tr>
<td>Sublingual</td>
<td>30 (0.5)</td>
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</table>

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<thead>
<tr>
<th>Presentation mode, N=619, N (%)</th>
<th>N (%)</th>
</tr>
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<tbody>
<tr>
<td>Tablets</td>
<td>268 (43.2)</td>
</tr>
<tr>
<td>Solution</td>
<td>342 (55.2)</td>
</tr>
<tr>
<td>Other</td>
<td>9 (1.7)</td>
</tr>
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<thead>
<tr>
<th>Delivery mode, N=602, N (%)</th>
<th>N (%)</th>
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<tbody>
<tr>
<td>Take-home dose</td>
<td>459 (76.2)</td>
</tr>
<tr>
<td>On-site administration</td>
<td>134 (22.3)</td>
</tr>
<tr>
<td>Others</td>
<td>9 (1.5)</td>
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<table>
<thead>
<tr>
<th>Visits to the centre, N=587, N (%)</th>
<th>N (%)</th>
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<tbody>
<tr>
<td>Outpatient</td>
<td>565 (96.1)</td>
</tr>
<tr>
<td>In-patient</td>
<td>22 (3.9)</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Current prescription mode, N=591, N (%)</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry / Pharmacy</td>
<td>49 (8.3)</td>
</tr>
<tr>
<td>Health centre</td>
<td>162 (27.4)</td>
</tr>
<tr>
<td>Official narcotics prescription</td>
<td>162 (27.5)</td>
</tr>
<tr>
<td>Ordinary prescription</td>
<td>41 (6.9)</td>
</tr>
<tr>
<td>Regional AID programme</td>
<td>110 (18.6)</td>
</tr>
<tr>
<td>Other</td>
<td>67 (11.3)</td>
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</table>
Patients with OD under an opiate replacement therapy
N = 621

<table>
<thead>
<tr>
<th>Physical comorbidities, N=621, N (%)</th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Infectious</td>
<td>351 (56.5)</td>
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<tr>
<td>Non-infectious</td>
<td>259 (41.7)</td>
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<table>
<thead>
<tr>
<th>Psychiatric comorbidities , N=621, N (%)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis I</td>
<td>321 (51.7)</td>
<td></td>
</tr>
<tr>
<td>Axis II</td>
<td>116 (18.7)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concomitant treatments, N (%)</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>For infectious diseases, N=615</td>
<td>188 (30.6)</td>
<td></td>
</tr>
<tr>
<td>For non-infectious diseases, N=615</td>
<td>131 (21.6)</td>
<td></td>
</tr>
<tr>
<td>For psychiatrist disorders , N=621</td>
<td>350 (56.4)</td>
<td></td>
</tr>
</tbody>
</table>
### Patients with OD under an Opiate Replacement Therapy

**N = 621**

<table>
<thead>
<tr>
<th>Patients with OD under an opiate replacement therapy</th>
<th>N = 621</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration of opiate abuse, N=563, mean ± SD (years)</strong></td>
<td>18.29 ± 7.60</td>
</tr>
<tr>
<td><strong>Family history of opiate abuse, N=617, N (%)</strong> a</td>
<td>214 (34.7)</td>
</tr>
<tr>
<td>Brother / Sister, N=197, N (%)</td>
<td>149 (75.7)</td>
</tr>
<tr>
<td>Father /Mother N=197, N (%)</td>
<td>16 (8.1)</td>
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<tr>
<td>Cousin, N=197, N (%)</td>
<td>16 (8.1)</td>
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<tr>
<td>Other, N=197, N (%)</td>
<td>16 (8.1)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Patients included in a previous replacement program classified by the current replacement therapy, N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methadone, N=580</td>
</tr>
<tr>
<td>Buprenorphine-Naloxone, N=29</td>
</tr>
<tr>
<td>Others, N=12</td>
</tr>
</tbody>
</table>
PHYSICAL DISEASE APPROACH
7.1 Assessment for HCV treatment

All adults and children with chronic HCV infection, including people who inject drugs, should be assessed for antiviral treatment.

Strong recommendation, moderate quality of evidence
RETOS

Fig. 3. The continuum of viral hepatitis services and the retention cascade

CONTINUUM OF SERVICES – CASCADE OF CARE

TESTING  LINKAGE TO CARE  TREATMENT  CHRONIC CARE

PREVENTION

WHO 2017
MODELO SECUENCIAL

Fig. 3. The continuum of viral hepatitis services and the retention cascade

CONTINUUM OF SERVICES – CASCADE OF CARE

TESTING | LINKAGE TO CARE | TREATMENT | CHRONIC CARE

PREVENTION

WHO 2017
Barriers and facilitators for assessment and treatment of hepatitis C virus infection in the opioid substitution treatment setting: insights from the ETHOS study

C. Treloar, J. Rance, G. J. Dore, and J. Grebely on behalf of the ETHOS Study Group

1National Centre in HIV Social Research, The University of New South Wales, Sydney, NSW, Australia; and 2Kirby Institute, The University of New South Wales, Sydney, NSW, Australia
Factors Associated with Interest in Initiating Treatment for Hepatitis C Virus (HCV) Infection among Young HCV-Infected Injection Drug Users

Clinical Infectious Diseases 2005;40:S304–12

Steffanie A. Strathdee,1 M. Latka,2 J. Campbell,4 P. T. O’Driscoll,5 E. T. Golub,5 F. Kapadia,2 R. A. Pollini,5 R. S. Garfein,1,7 D. L. Thomas,6 and H. Hagan,3 for the Study to Reduce Intravenous Exposures Project

Conclusions. Improving provider-patient communication and integrating treatments for substance abuse and HCV may increase the proportion of IDUs who initiate treatment for HCV infection.
Psychoeducation Improves Hepatitis C Virus Treatment During Opioid Substitution Therapy: A Controlled, Prospective Multicenter Trial
Desconocimiento del proceso diagnóstico

Ansiedad entre los test y trámites de derivación
INTEGRATING HARM REDUCTION
DEFINITION OF HARM REDUCTION

- Harm reduction refers to policies, programs and practices that aim to reduce the harms associated with the use of illegal drugs in people unable or unwilling to stop.

- HR based on a strong commitment to public health and human rights.

- HR practitioners acknowledge the significance of any positive change that individuals make in their lives.
HARM REDUCTION

- The goals of a person seeking HRT can range from complete abstinence to controlled or safer use.
- Harm Reduction Therapy is based on a complex unfolding of the person's desire to improve their health, relationships and overall functioning in the world.
DEFINITION OF HARM REDUCTION

- Grounded in the needs of individuals.
- Practical, feasible, effective, safe and cost-effective.
- Keeping people who use drugs alive and preventing irreparable damage.
HARM REDUCTION PROGRAMS

- Needle and syringe programmes
- Opioid substitution therapy (OST)
- Supervised injection sites
- Early warning systems
- Overdose prevention
- Wet housing
- Alcohol, cannabis and other drugs programmes
HARM REDUCTION PROGRAMS

- Pill testing for ecstasy and other hallucinogens
- Crack pipe exchange programs
- Nicotine replacement therapies
- Information, education, and communication
- Community-based outreach
- Drug courts
**Harm Reduction in EU**

<table>
<thead>
<tr>
<th>Country</th>
<th>Take-home naloxone programmes</th>
<th>Drug consumption rooms</th>
<th>Heroin-assisted treatment</th>
<th>Opioid substitution treatment</th>
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<tbody>
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<td>Austria</td>
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<td>United Kingdom</td>
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KEY APPROACHES FOR REDUCING OPIOID RELATED DEATHS

Reducing fatal outcome of overdose
- Supervised drug consumption
  - Immediate first-aid in drug emergencies
- Take-home naloxone programmes
  - Improved bystander response

Reducing risk of overdose
- Retention in opioid substitution treatment
  - Reduce drug use and injecting
- Overdose risk assessments
  - In treatment facilities and prisons
- Overdose awareness
  - Knowledge of risk and safer use

Reducing vulnerability
- Outreach and low-threshold services
  - Accessible services
- Enabling environment
  - Removing barriers to service provision
- Empowerment of drug users
  - Enabling drug users to protect themselves
- Public health approach
  - Recognition of wider impact
Coverage of specialised syringe programmes

Coverage of specialised syringe programmes: number of syringes provided per estimated injecting drug user

Number of countries per coverage level:
- High (>200): 4
- Medium (100–200): 4
- Low (<100): 7
- Coverage not calculable: 15

NB: Data displayed as point estimates and uncertainty intervals.
The impact of harm reduction on HIV and illicit drug use

Lianping Ti\textsuperscript{1,2} and Thomas Kerr\textsuperscript{1,3,*}

Abstract

There has been widespread support for harm reduction programs as an essential component for responding to the HIV and illicit drug use epidemics. However, despite the growing international acceptance of harm reduction, there continues to be strong opposition to this approach, with critics alleging that harm reduction programs enable drug use. Vancouver, Canada provides a compelling case study that demonstrates that many positive impacts of harm reduction can be attained while addiction treatment-related goals are simultaneously supported. While the evidence for harm reduction is clearly mounting, it is unfortunate that ideological and political barriers to implementing harm reduction programs in Canada remain. As evidenced by Vancouver and elsewhere, harm reduction programs do not exacerbate drug use and undermine treatment efforts and should thereby occupy a well-deserved space within the continuum of programs and services offered to people who inject drugs.

Keywords: Harm reduction, Illicit drug use, Canada

http://www.harmreductionjournal.com/content/11/1/7
STUDIES AND RESEARCH ON HR


- Henwood BF, Padgett DK, Tiderington E. *J Behav Health Serv Res*. 2014. Provider views of harm reduction versus abstinence policies within homeless services for dually diagnosed adults.
VALL D HEBRON EXPERIENCE ON HARM REDUCTION PROGRAMME
DATA FROM OUR CLIENTS
SUPERVISED CONSUMPTION ROOM
ESPACIOS

CALIU y CAFÉ
Sala donde podrás tomar un café, zumos, galletas..., además de ser escuchado y acompañado por los educadores.
Horario: 11 a 14 y 16 a 18 h
Martes cerrado de 13:30 a 16:00 h

ESPACIO DE CONSUMO + HIGIÉNICO
Lugar donde podrás realizar tus consumos en un ambiente tranquilo y acompañado por profesionales que pueden aconsejarte y actuar en caso de sobredosis.
Horario: 11 a 18:15 h
Martes cerrado de 13:30 a 16:00 h

SERVICIO DE HIGIENE PERSONAL
Te ofrecemos un espacio y el material para que te puedas duchar, afeitar, lavarte los dientes y disponemos de un pequeño ropero siempre según disponibilidad.
Horario: 11 a 14 y 16 a 18 h
Martes cerrado de 13:30 a 16:00 h

SALA DE CURAS
Atendido por un profesional sanitario, podrás recibir pequeñas curas de abscesos, arañazos, cortes, etc...
Horario: 11 a 14 y 16 a 18 h

PROGRAMAS

PIX (Horario: 11 a 19 h)
Con el programa de intercambio de jeringuillas te ofrecemos:
❖ Jeringuillas
❖ Recogida de las utilizadas
❖ Contenedores
❖ Plata para fumar
❖ Cánulas para esnifar con seguridad
❖ Citrico para la heroína marrón
❖ Aguas
❖ Cazoletas...

ENTREGA DE NALOXONAS
Para actuar en caso de sobredosis de heroína.

PROGRAMA SEXO + SEGURO
Te ofrecemos:
❖ Preservativos tanto masculinos como femeninos
❖ Lubricantes
❖ Prueba de embarazo
❖ Educación sexual

INFORMACIÓN SOBRE LA TARJETA SANITARIA para todos nuestros usuarios por las Trabajadores sociales.

PROGRAMA SANITARIO

PROGRAMA TU SALUD
Seguimiento del personal sanitario dónde te pueden realizar:
❖ Evaluación y consejo de salud:
  ❖ Tensión arterial
  ❖ Control de peso
  ❖ Dietas
❖ Aconsejándote y resolviendo tus dudas sobre:
  ❖ Consumo + seguro
  ❖ VIH
  ❖ Hepatitis
  ❖ Sexo + seguro
  ❖ Educación sanitaria
❖ Diferentes pruebas:
  ❖ Analíticas de sangre
  ❖ Prueba de la tuberculosis
❖ Vacunación
❖ Iniciar tratamiento y seguimiento médico
MENTAL ASSESSMENT
INTERDISCIPLINARY APPROACH
ASSESSMENT OF AGEING SPECIAL NEEDS
PREVENTING MORE DAMAGES AND RISKS RELATED TO DRUG USE
FOCUS ON SOCIAL AND COMMUNITY APPROACH
AVOIDING STIGMATIZATION
TAKING CARE ABOUT PHYSICAL AND MEDICAL NEEDS
IMPROVING QUALITY OF LIFE

Ageing Drug User
EXISTENCIAL QUESTIONS OR COMMENTARIES OF AGEING DRUG USERS....

- Could I leave methadone some day?
- “I'm embarrassed to consume at my age”
- “I am no longer a boy to consume by the vein”
- Why When I use heroin, I'm active?
- “I can not leave the needle”
- “I'm so used to consuming that if I do not, I do not find meaning in things”
THANKS FOR YOUR ATTENTION!!
Every new day is another chance to change your life.
Table 1: Frequency of supervised consumption of methadone (for non-prison setting and over-18s)

<table>
<thead>
<tr>
<th>Phase</th>
<th>Suggested frequency of supervised consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHASE I Pre OST (10 days prior to commencing OST)</td>
<td>N/A</td>
</tr>
<tr>
<td>PHASE II Induction</td>
<td>Daily</td>
</tr>
</tbody>
</table>
| PHASE III Stabilisation | · Daily supervised consumption of methadone is recommended until the patient is stable.  
· No more than 6 days should be prescribed to take home, except for holidays. |
| PHASE IV Maintenance | · A reduction from daily supervised consumption can be considered when the patient has demonstrated ongoing stability and shown that they can safely manage take home doses.  
· Caution is needed with take home doses if there is a concern around alcohol or other drug use, as these can increase risks of fatal overdose by respiratory depression.  
· As a guide, the following is suggested, depending on clinical assessment and patient need:  
  » Above 80mgs: Twice weekly supervision  
  » Above 120mgs: Increased supervision should be considered.  
  » No more than 6 days should be prescribed to take home, except for holidays. |
| PHASE V Detoxification | · A reduction from supervised consumption from the patient’s maintenance phase can be considered.  
· This depends on clinical assessment based on patient need.  
· No more than 6 days should be prescribed to take home, except for holidays. |
New synthetic opioids

Overall, 38 new opioids have been detected on Europe’s drug market since 2009 — including 13 reported for the first time in 2017. This includes 28 fentanyl derivatives, 10 of which were reported for the first time in 2017. Although currently playing a small role in Europe’s drug market, the new fentanyl derivatives are highly potent substances that pose a serious threat to individual and public health.

New opioids have been seized in various forms: mainly as powders, tablets and liquids. About 4.6 litres of synthetic opioids were seized in 2016, an increase from the 1.8 litres reported the previous year. Over 70% of the 1600 or so seizures of new synthetic opioids reported in 2016 were fentanyl derivatives. Fentanyl derivatives were found in over 96% of the liquids seized. One concern in this respect is the appearance on the market of nasal sprays containing fentanyl derivatives such as acryloylfentanyl, furanyl-fentanyl, 4-fluoroisobutyrylfentanyl, tetrahydrofuranylfentanyl and carfentanil. New opioids accounted for 2.3% of the total number of seizures of new substances seized in 2016 up from 0.8% reported for 2015.
The prevalence of high-risk opioid use among adults (15–64) is estimated at 0.4 % of the EU population, the equivalent of 1.3 million high-risk opioid users in 2016. At national level, prevalence estimates of high-risk opioid use range from less than 1 to more than 8 cases per 1 000 population aged 15–64. The five most populous countries in the European Union, accounting for 62 % of its population, contain three-quarters (76 %) of its estimated number of high-risk opioid users (Germany, Spain, France, Italy, United Kingdom). Of the 11 countries with regular estimates of high-risk opioid use between 2006 and 2016, Spain and Italy show a statistically significant decrease while the Czech Republic shows a statistically significant increase (Figure 2.11).
A comparison with current estimates of the number of high-risk opioid users in Europe would suggest that overall about half receive substitution treatment, but there are differences between countries (Figure 3.4). In those countries where data from 2007 or 2008 are available for comparison, there was generally an increase in coverage. Levels of provision, however, remain low in some countries.

Methadone is the most commonly prescribed opioid substitution drug, received by almost two-thirds (63%) of substitution clients in Europe. A further 35% of clients are treated with medications based on buprenorphine, which is the principal substitution drug in 8 countries (Figure 3.5). Other substances, such as slow-release morphine or diacetylmorphine (heroin), are more rarely prescribed, being received by an estimated 2% of substitution clients in Europe. The majority of those in substitution treatment in Europe are over 35 years old and have been receiving treatment for more than 2 years. Alternative treatment options for opioid users are available in all European countries. In the 13 countries for which data are available, between 3% and 28% of all opioid users in treatment receive interventions not involving opioid substitution.
Opioid substitution treatment: national provision varies

Substitution treatment, often combined with psychosocial interventions, is the most common treatment for opioid dependence. The available evidence supports this approach, with positive outcomes found in respect to treatment retention, illicit opioid use, reported risk behaviour, drug-related harms and mortality. Cannabis and cocaine users are the second and third largest groups entering treatment services (Figure 3.3). Psychosocial interventions are the main treatment modality for these clients.

An estimated 628 000 opioid users received substitution treatment in the European Union in 2016 (636 000 including Norway). The trend shows an overall increase in clients up to a peak in 2010, followed by a 10 % decline to 2016. Between 2010 and 2016, decreases were observed in 12 countries, with the largest (decreases of more than 25 %) reported by Spain, the Netherlands and Portugal. This decline may be explained by factors related to demand or provision, including a falling population of ageing, chronic opioid users or shifts in treatment goals in
The overall lack of efficacy seen with oral naltrexone, partly due to low rates of retention and adherence, has led to the development of sustained-release formulations that are expected to help address adherence. The high-dose injection was associated with greater treatment retention compared with placebo (weighted mean difference [WMD] 21.00; 95% CI 10.68, 31.32; \( p < 0.0001 \)) and low-dose (WMD 12.00; 95% CI 1.69, 22.31; \( p = 0.02 \)). The primary adverse effects were fatigue and administration site-related conditions.
Determinar la dosis apropiada de agonista para el mantenimiento a largo plazo del paciente.

Mantenimiento con una dosis óptima para avanzar hacia la recuperación.

Transferencia del paciente de heroína u otros opiáceos a Suboxone®. En esta fase se busca conseguir la dosis mínima con la que el paciente se encuentra bien (con supervisión médica).

Inducción. Después de un tiempo satisfactorio, se puede disminuir gradualmente la dosis a una dosis más baja de mantenimiento.