The Future of Prescription Drug Abuse Beyond Opioids: A UK Perspective

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Funding and Conflicts of Interest
Euro-DEN and Euro-DEN Plus
- 2013-2015: The Euro-DEN project had financial support from the DPIP/ISEC Programme of the European Union
- 2015 onwards: The Euro-DEN Plus Project has received support from EMCDDA since August 2015

Rocky Mountain Poison and Drug Control Center
- Grants and statistical assistance with analysis of data from UK Internet surveys and web monitoring surveys
- Honorarium to attend and present at annual RADARS scientific meetings in 2014, 2015, 2016 and 2018

Why 1.6m Britons are addicted to prescription pills

Mail Online

The ‘safe’ painkiller that is turning unsuspecting women into drug addicts
- Co-codimpl is a painkiller containing paracetamol and codeine
- Once a month, the number of prescriptions for it have doubled
- The majority of users are women but women
A nation of prescription drug addicts: More Britons die from abusing painkillers and tranquillizers than heroin and cocaine

Many GPs 'prescribe drugs to addicted patients'

The Guardian

Prescription abuse outstrips illegal drug use, UN warns
- Counterfeit market has lethal consequences
- Crackdown on appetite suppressants urged

BRITAIN’S OPIOID CRISIS

Editorials

Tackling benzodiazepine misuse

OPEN ACCESS
The time to take decisive action has come

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Misuse of gabapentin and pregabalin may be underestimated

Lincoln K Nahai, toxicologist, Rebecca Andrews, senior toxicologist and deputy head*; Kevin G Murphy, professor of endocrinology and metabolism*, Sue Paterson, consultant toxicologist and head*.

Diversion and Illicit Supply of Medicines

Type of drug. The most prevalent diverted drugs are opioids and benzodiazepines. Increasing amounts of gabapentin and pregabalin are being diverted. Cognitive enhancers could be susceptible to diversion in the future. Further attention needs to be given to the misuse of codeine in over-the-counter (OTC) preparations as a precursor to the misuse of prescription opioids.
UK population level data

- Longitudinal data on ‘tranquilisers’
- 2018/19 CSEW survey
  - Life-time use: 16-59y 2.9%; 16-24y 2.2%
  - Last year use: 16-59y 0.4%; 16-24y 0.6%

UK population level data: prescription painkiller misuse

- From 2014/15 CSEW survey following question included:
  "Have you taken prescription-only painkillers not prescribed to you, which you took only for the feeling or experience it gave you"

<table>
<thead>
<tr>
<th></th>
<th>Any Drug</th>
<th>Painkillers</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 to 59 years old</td>
<td>6.4%</td>
<td>6.4%</td>
</tr>
<tr>
<td>16 to 24 years old</td>
<td>20.3%</td>
<td>6.1%</td>
</tr>
<tr>
<td>25 to 59 years old</td>
<td>7.0%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Males</td>
<td>12.6%</td>
<td>6.9%</td>
</tr>
<tr>
<td>Females</td>
<td>6.3%</td>
<td>5.9%</td>
</tr>
</tbody>
</table>

UK NMRUx survey established in 2012

"used without a doctor's prescription or for any reason other than what was recommended by your doctor"
Life-time misuse of any benzodiazepine or Z-drug: 7.7%

Highest life-time rates in frequently prescribed drugs:
- Diazepam: 6.2%; Zopiclone: 2.8%
- 1.7% misusing weekly or more frequently

Commonest reason for misuse was to help with sleep
- Only 1.2% reported use to manage come down

Life-time misuse of any GABAergic: 2.5%
- Baclofen: 1.3%
- Gabapentin: 1.1%
- Pregabalin: 0.5%

Misuse drugs sourced variety of routes:
- Health services: 63%
- Family/Acquaintances: 58%
- Internet: 8%

Survey of 10,019 UK based respondents

Estimated national prevalence of lifetime NMU:
- Alprazolam: 0.3% (males 0.5%, females 0.2%, p=0.021)
- Diazepam: 1.3% (males: 1.4%, females: 1.2%, p=0.475)

Estimated national prevalence of recent NMU:
- Alprazolam: 0.08% (males 0.099%, females 0.08%)
- Diazepam: 0.21% (males: 0.19%, females: 0.24%)

<table>
<thead>
<tr>
<th>Reason</th>
<th>Alprazolam weighted % (95% CI)</th>
<th>Diazepam weighted % (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>To treat a medical condition</td>
<td>54.9 (34.3-75.5)</td>
<td>71.5 (62.8-80.1)</td>
</tr>
<tr>
<td>To get high</td>
<td>39.1 (19.0-59.1)</td>
<td>33.7 (24.6-42.7)</td>
</tr>
<tr>
<td>To come down</td>
<td>26.8 (18.1-45.5)</td>
<td>21.1 (13.2-28.9)</td>
</tr>
<tr>
<td>To prevent withdrawal</td>
<td>11.3 (1.3-21.3)</td>
<td>8.5 (3.9-13.0)</td>
</tr>
<tr>
<td>Other</td>
<td>5.4 (0.0-12.9)</td>
<td>6.6 (2.3-10.9)</td>
</tr>
</tbody>
</table>
2119 Euro-DEN Plus presentations over 2 years
25 different benzodiazepines and Z-drugs
  ~77% were prescription medicines
Mostly frequently reported to have been used:
  – Clonazepam (29.5% of presentations)
  – Diazepam (19.9%)
  – Alprazolam (11.7%)
  – Zopiclone (9.4%)
UK population level data: prescription painkiller misuse

- Association with illicit drug use
  - Used in last year 10.7% vs not used 5.9%
- Demographic factors associated with increased use
  - Most deprived 8.3% vs least deprived 4.4%
  - Rural 6.2% vs Urban 6.4%
  - Employed 6.2% vs Unemployed 7.2%
  - Long-term illness / disability

<table>
<thead>
<tr>
<th>Drug</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescription painkillers</td>
<td>12.6%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Any illicit drug</td>
<td>12.7%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Cannabis</td>
<td>10.9%</td>
<td>7.2%</td>
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</tbody>
</table>
• 22% of those surveyed admitted NMU of Gabapentinoid
  – 76% took to become intoxicated (‘high’, ‘stoned’)
  – 38% took to potentiate the effect(s) of methadone
    (‘brings my methadone to highest peak’, ‘to get a little
    stoned from my methadone’)

• UK Twitter posts 1st October to 31st December 2018
  – Modafinil tweets (196); methylphenidate tweets (436)
  – Common keywords for modafinil
    – “cognitive” (7.7% of total modafinil tweets)
    – “smart” (5.6%)
    – “nootropic”, “student”, and “study” (each 5.1%)
  – Common keywords for methylphenidate
    – “school” (4.4% of total methylphenidate tweets)
    – “focus” (3.4%)
    – “brain” (2.5%)
    – “concentrate” (1.6%)

Parting Thoughts
• Increasing evidence of non-medical use of prescription
  medicines in the UK other than opioids
  – True extent of the problem not understood
  – Non-opioid NMU appears to be less than opioid NMU
• Misuse appears associated with chronic illness and pain, lower
  income and social deprivation
• Significant harms being associated with misuse
  – Drug treatment, drug-related deaths, ED presentations
• Understanding relationship between prescribing patterns
  will enable improved harm reduction strategies
  – Warning patients and clinicians of the risks of NMU

Thank You