Association between injection of new psychoactive substance Alpha PVP ‘Snow blow’ and HIV infections among homeless people who inject drugs in Dublin, Ireland, 2015

MARGARET CURTIN
DEPARTMENT OF EPIDEMIOLOGY AND PUBLIC HEALTH,
UNIVERSITY COLLEGE CORK
AND

IRISH FOCAL POINT, HEALTH RESEARCH BOARD
Background

February 2015
  • Unexpected increase in acute HIV infection among PWID (p24 antigen positive)

And
  • Increased use of a new psychoactive substance α-PVP (Snow blow) among chaotic PWID

Epidemiological investigation and case-control study instigated
Recent HIV infections with epidemiological link to PWID in Dublin, by month of first diagnosis, January 2014 to September 2015 (n = 38)
Demographic Characteristics

Of the 38 cases:
- Female: 16
- Median age: 35 years (range 24 – 51)
- Registered homeless: 29
- Reported injecting: 18 (out of 20 for whom information was available)
- Sex with PWID or HIV +ve partner: 20
Case control study

Cases: 15 HIV +ve, homeless, chaotic drug users

Controls: random sample from National Drug Treatment Centre of 39 HIV –ve, homeless, chaotic drug users

No difference between cases and controls in age, duration of injection or living circumstances.
Univariate analysis to identify factors associated with infection

Factors identified ($p>0.2$) and entered into multiple regression model:
- Injecting methamphetamine
- Injecting α-PVP
- Using amphetamines
- Using other NPS
- Sex with PWID
- Use of used needles or syringes
- Use of used filters
- Use of used containers or spoons
- Sharing works with multiple people
- Polydrug use
Factors positively associated with recent HIV infection in multiple regression analysis

<table>
<thead>
<tr>
<th>Factors positively associated with recent HIV infection</th>
<th>Adjusted odds ratio</th>
<th>95% Confidence Interval</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injecting α-PVP</td>
<td>49</td>
<td>3.6 – 669</td>
<td>0.003</td>
</tr>
<tr>
<td>Reusing needles/ Syringes</td>
<td>13</td>
<td>1.01 – 177</td>
<td>0.049</td>
</tr>
<tr>
<td>Having sex with PWID</td>
<td>36</td>
<td>1.6 – 782</td>
<td>0.022</td>
</tr>
<tr>
<td>Female sex</td>
<td>3.5</td>
<td>0.27 - 44</td>
<td>0.34</td>
</tr>
</tbody>
</table>
Control measures implemented:

- Multi-disciplinary work to engage HIV positive PWID in HIV care
- HIV testing offered to PWID
- Awareness campaigns with clients, clinicians and networks of PWID about injecting NPS, sexual at-risk behaviours and availability of treatment services
- Enhanced contact tracing and active case finding
- Strengthening needle/syringe provision