Hepatitis C Prevention and Treatment for People Who Inject Drugs

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HCV prevention and treatment for PWID: 

**Key priorities**

- **Harm reduction access:** a major global public health priority; cost-saving; *without it HCV elimination unachievable* in countries with PWID transmission

- **HCV screening and HCV RNA testing:** HCV diagnosis remains sub-optimal in most settings; reflex RNA testing or point of care RNA testing required

- **Linkage to diverse models of care:** primary/community care essential, NSP delivered care, peer support, prison-based access

- **Reductions in DAA pricing:** *essential for removal of drug use restrictions*

- **Drug law reform:** *essential for broad drug user health*
Declaration of the Hepatitis Community: No Elimination Without Decriminalization

We, the viral hepatitis community, whole-heartedly support Member States’ commitment to the goal of eliminating viral hepatitis by 2030. In order to achieve that goal, we call on world political leaders to remove all barriers to the uptake of the full range of prevention services by people who use drugs by reforming laws, law enforcement procedures and discrimination that hinder access, including the criminalization of minor, non-violent drug offences and to adopt an approach based overwhelmingly on public health promotion, respect for human rights and evidence.

Alliance for Public Health; Coalition PLUS (international); Conectas (Brazil); Correlation Network; European AIDS Treatment Group (EATG); Grupo de Ativistas em Tratamentos (GAT Portugal); Global Network of People Living with HIV (GNP+); Harm Reduction International (HRI); Harm Reduction International (HRI); International AIDS Society (IAS); International Drug Policy Consortium (IDPC); International Network for Hepatitis in Substance Users (INHSU); International Network of People Who Use Drugs (INPUD); International Committee on the Rights of Sex Workers in Europe (ICRSE); International HIV Partnerships (IHP); International HIV/AIDS Alliance; International Treatment Preparedness Coalition (ITPC); Médecins du Monde (MdM); Open Society Foundation (OSF); Treatment Action group (TAG); World Hepatitis Alliance (WHA).

http://hepccoalition.org/?/lang=en
Need to define populations of PWID

**Australian estimates**

Key Data Requirements for Setting:

1. Epidemiologically define: total, HCV+
2. **Monitor coverage of harm reduction**
3. Monitor HCV treatment uptake
4. Monitor HCV RNA prevalence

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**Ever PWID**
- N>450,000
- Chronic HCV 40%
  - N=180,000

**Current PWID**
- N=95,000
- Chronic HCV 40%
  - N=38,000

**Prisoners**
- N=50,000
- Chronic HCV 25%
  - N=12,500

**PWID on OST**
- N=48,000
- Chronic HCV 50%
  - N=24,000

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Grebely J, Hajarizadeh B, Dore GJ. *Nature Reviews Gastro Hepatol* 2017
### Harm reduction essential: impact of OST

<table>
<thead>
<tr>
<th>Reference</th>
<th>Risk Ratio (95% CI)</th>
<th>% Weight</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current OST use (last 6 months)</td>
<td></td>
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</tr>
<tr>
<td>Bruneau, 2015</td>
<td>0.74 (0.47, 1.16)</td>
<td>25.04</td>
<td>Canada (Montreal)</td>
</tr>
<tr>
<td>Craine, 2009</td>
<td>0.34 (0.12, 0.99)</td>
<td>4.59</td>
<td>Wales</td>
</tr>
<tr>
<td>Judd, 2015</td>
<td>0.49 (0.17, 1.47)</td>
<td>4.39</td>
<td>UK (London)</td>
</tr>
<tr>
<td>Lucidarme, 2004</td>
<td>0.41 (0.12, 1.40)</td>
<td>3.39</td>
<td>France</td>
</tr>
<tr>
<td>Maher, 2015</td>
<td>0.46 (0.25, 0.84)</td>
<td>13.91</td>
<td>Australia</td>
</tr>
<tr>
<td>Mehta, 2015</td>
<td>0.82 (0.19, 3.54)</td>
<td>2.41</td>
<td>USA (Baltimore)</td>
</tr>
<tr>
<td>Nolan, 2014</td>
<td>0.47 (0.29, 0.76)</td>
<td>22.02</td>
<td>Canada (Vancouver)</td>
</tr>
<tr>
<td>Palmateer, 2014</td>
<td>0.52 (0.23, 1.18)</td>
<td>7.64</td>
<td>Scotland</td>
</tr>
<tr>
<td>Rezza, 1996</td>
<td>0.34 (0.10, 1.11)</td>
<td>3.62</td>
<td>Italy</td>
</tr>
<tr>
<td>Thiede, 2000</td>
<td>0.40 (0.01, 4.20)</td>
<td>0.56</td>
<td>USA (Seattle)</td>
</tr>
<tr>
<td>Tsui, 2014</td>
<td>0.39 (0.18, 0.87)</td>
<td>8.23</td>
<td>USA (San Francisco)</td>
</tr>
<tr>
<td>White, 2014</td>
<td>0.18 (0.04, 1.00)</td>
<td>2.00</td>
<td>Australia (heroin users)</td>
</tr>
<tr>
<td>White, 2014</td>
<td>0.56 (0.12, 2.56)</td>
<td>2.20</td>
<td>Australia (stimulant users)</td>
</tr>
<tr>
<td>Subtotal (I-squared = 0.00%, p = 0.889)</td>
<td>0.50 (0.40, 0.63)</td>
<td>100.00</td>
<td></td>
</tr>
<tr>
<td>Overall (I-squared = 0.00%, p = 0.889)</td>
<td>0.50 (0.40, 0.63)</td>
<td>100.00</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Weights are from random effects analysis.

Platt L, et al. Cochrane Database of Systematic Reviews 2017
Harm reduction essential: OST + NSP

<table>
<thead>
<tr>
<th>Reference</th>
<th>Risk Ratio (95% CI)</th>
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</thead>
<tbody>
<tr>
<td><strong>High NSP coverage</strong></td>
<td></td>
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<tr>
<td>Hope, 2011</td>
<td>0.17 (0.02, 1.54)</td>
</tr>
<tr>
<td>Bruneau, 2015</td>
<td>0.63 (0.37, 1.07)</td>
</tr>
<tr>
<td>Van Den Berg, 2007</td>
<td>0.15 (0.06, 0.40)</td>
</tr>
<tr>
<td>Palmateer, 2014</td>
<td>0.24 (0.10, 0.59)</td>
</tr>
<tr>
<td>Subtotal (I-squared = 64.4%, p = 0.038)</td>
<td><strong>0.29 (0.13, 0.65)</strong></td>
</tr>
<tr>
<td><strong>Low NSP coverage</strong></td>
<td></td>
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<tr>
<td>Hope, 2011</td>
<td>1.08 (0.31, 3.82)</td>
</tr>
<tr>
<td>Van Den Berg, 2007</td>
<td>1.04 (0.53, 2.05)</td>
</tr>
<tr>
<td>Palmateer, 2014</td>
<td>0.48 (0.24, 0.95)</td>
</tr>
<tr>
<td>Subtotal (I-squared = 29.6%, p = 0.242)</td>
<td>0.76 (0.44, 1.33)</td>
</tr>
<tr>
<td>Overall (I-squared = 62.2%, p = 0.014)</td>
<td><strong>0.47 (0.27, 0.80)</strong></td>
</tr>
</tbody>
</table>

NOTE: Weights are from random effects analysis
High OST + NSP coverage is rare

High Coverage:
200 needle-syringes per PWID
40 OST recipients per 100 PWID

Global Coverage Estimates:
33 needle-syringes per PWID
16 OST recipients per 100 PWID

Global PWID Estimates:
15.6 million current PWID
(China 2.6; USA 2.2; Russia 1.9; Brazil 0.9)
8.1 million HCV+
HCV treatment alone will not succeed

- **Settings:**
  - **San Francisco:** stable, lowest incidence (10/100py)
  - **Perry County, KY:** stable, moderate incidence (20/100py)
  - **Scott County, IN:** increasing, high incidence (>40/100py)

- **Without harm reduction scale-up**
  - <15%/yr treated in SF & KY
  - Double treatment rate in IN as incidence high/increasing

- **With harm reduction scale-up (50% coverage each)**
  - Halves treatment rate in KY and IN
  - Less impact in SF due to higher baseline coverage of syringe exchange

PWID have favourable DAA outcomes

DAA uptake high when barriers removed

Australian NSP Survey (n~2,500)

HCV treatment among chronic HCV (%)

Iversen J, et al. INHSU 2017
Diverse models of DAA delivery essential

Australian prescriber patterns: Mar 2016 – Jun 2017

Kirby Institute, 2017
HCV reinfection: key issues

- **Acknowledgement:** there will be cases of HCV reinfection; if there are no cases, it is not a current PWID population

- **Harm reduction optimisation:** HCV reinfection incidence will reflect HCV primary infection incidence in the setting

- **Individual-level strategies:** treatment of injecting partners and networks should be considered

- **Rapid scale-up:** a slow scale-up will create HCV ‘susceptible’ PWID without reduction in viraemic pool

- **Access to re-treatment:** without stigma and discrimination
HCV reinfection: impact of injecting

Rapid DAA scale-up is optimal

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