Blood Borne Viruses – Background Information for Risk Assessment

Transmission rates for Bloodborne Viruses

Quoted transmission rates are:

- **HIV:**
  - Percutaneous exposure: ~0.3%
  - Mucocutaneous exposure: <0.1%

- **HBV** (Percutaneous):
  - ~30% (HBsAg +ve source)

- **HCV** (Percutaneous):
  - 1-3%

Factors associated with increased risk of occupationally acquired HIV infection include:

- Deep injury
- Visible blood on the device which caused the injury
- Injury with a needle which had been placed in a source patient’s artery or vein
- Known or likely high viral load in source patient

Estimated prevalence of BBV in Lothian (NB: if no data use General Population values)

<table>
<thead>
<tr>
<th></th>
<th>HIV</th>
<th>HCV</th>
<th>HBV</th>
</tr>
</thead>
<tbody>
<tr>
<td>General population²</td>
<td>0.21% in 15-79-year olds (Lothian, 2017*)</td>
<td>0.4% Lothian, 2017*</td>
<td>0.4% (chronic) overall prevalence in Scotland -0.2% (British ethnicity) -2.2% (non-British ethnicity)</td>
</tr>
<tr>
<td>Men who have sex with men³⁵</td>
<td>5.4% Scotland 6.3% England &amp; Wales, excluding London (2017)</td>
<td>No higher than general population (unless HIV+)</td>
<td>No data</td>
</tr>
<tr>
<td>People who inject or have ever injected drugs⁶,⁷</td>
<td>0.6% in Lothian ~1.7% England, Wales &amp; N.Ireland (2017)</td>
<td>47% in Lothian</td>
<td>0.19% (HBsAg+) England, Wales &amp; N.Ireland (2017)</td>
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<tr>
<td>People who inject performance &amp; image enhancing drugs⁸</td>
<td>England &amp; Wales 1.5% (all) 0.8% (other risk behaviours excluded)</td>
<td>England &amp; Wales 5.5% (all) 4.7% (other risk behaviours excluded)</td>
<td>England &amp; Wales 8.8% (chronic, all) 8.0% (other risk behaviours excluded)</td>
</tr>
<tr>
<td>Prisoners HMP Edinburgh⁹</td>
<td>No data</td>
<td>All prisoners: 13% -Ever injected: 34% -Never injected: 2%</td>
<td>No data</td>
</tr>
<tr>
<td>Prisoners HMP Addiewell⁹</td>
<td>No data</td>
<td>All prisoners: 16% -Ever injected: 46% -Never injected: 3%</td>
<td>No data</td>
</tr>
<tr>
<td>Black Africans⁴</td>
<td>Male: 2.5% Female: 4.7%</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>South Asian¹⁰</td>
<td>No data</td>
<td>No data</td>
<td>Chronic: 0.59%</td>
</tr>
<tr>
<td>East Asian¹⁰</td>
<td>No data</td>
<td>No data</td>
<td>Chronic: 10.3 – 11.6%</td>
</tr>
</tbody>
</table>

* Based on est. 3500 still to be diagnosed/treated Lothian (population=883732)

**NB: IF SOURCE IS FROM OUTWITH UK DISREGARD TABLE AND SEEK ADVICE**

References

3. MRC Gay and Bisexual Men’s Sexual Health Survey Edinburgh, Glasgow and Dundee 2014 unpub. (n=1106)
5. Audit by Lothian GUM, 2009
6. NESI 2017/18
7. Shooting Up: An update, 2018
10. Schnier et al, HPS, 2013