Hepatitis B in London
public health aspects

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Acknowledgements

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London: 32 Primary Care Trusts
5 Strategic Health Authorities
4 HPA HPUs
35 NHS Trusts
Who gets hepatitis B?
Global prevalence of chronic HBV infection
Incidence of acute hepatitis B per 100,000 population reported through formal notifications in 2004 by Local Authority of residence in London
Laboratory reports of hepatitis B in London by status - 1999 to 2004
Cumulative laboratory reports of acute hepatitis B in London by age group and sex: 1999 to 2004
Cumulative laboratory reports of chronic hepatitis B in London by age group and sex: 1999 to 2004
## Estimated potential prevalence of chronic hepatitis B carriage in London population by ethnic group

<table>
<thead>
<tr>
<th>Country of origin</th>
<th>HBV prevalence (%)</th>
<th>London population*</th>
<th>Estimated number of likely carriers</th>
<th>Upper and lower estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>5</td>
<td>436,993</td>
<td>21,850</td>
<td>n/a</td>
</tr>
<tr>
<td>Pakistan</td>
<td>2-3</td>
<td>142,749</td>
<td>3569</td>
<td>2855 - 4282</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>4-5</td>
<td>153,893</td>
<td>6925</td>
<td>6156 - 7695</td>
</tr>
<tr>
<td>Africa</td>
<td>15</td>
<td>378,933</td>
<td>56,840</td>
<td>n/a</td>
</tr>
<tr>
<td>Caribbean</td>
<td>2-8</td>
<td>343,567</td>
<td>17,178</td>
<td>6871 - 27485</td>
</tr>
<tr>
<td>China</td>
<td>Up to 20</td>
<td>80,201</td>
<td>&lt;16,040</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>n/a</td>
<td>15,36336</td>
<td>122,402</td>
<td><strong>110,612–134,192</strong></td>
</tr>
</tbody>
</table>

*Source: Key Statistics from 2001 Census*
HPA Antenatal Infection Screening Surveillance (AISS) in London
30 NHS Trust Maternity Units- London 2004

Average number of women registered per half year between 2000 - 2004

- 3,401 to 3,310 (6)
- 2,001 to 2,400 (8)
- 1,651 to 2,000 (9)
- 770 to 1,650 (7)

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Source: Health Protection Agency London Regional Epidemiology Unit

James Crompton Lambeth PCT
Antenatal testing across the city
HIV, hepatitis B, syphilis and rubella susceptibility testing in 30 NHS Trust Maternity Units London, 2000-04
Prevalence of infection in pregnant women in London
HIV, hepatitis B and syphilis 2000-04
BBV infected HCWs and public safety

- infected
- aware
- reported

All HCWs
Public health interventions – prevention and control of hepatitis B in London

Primary prevention
Information and education
- sexual and travel risks
Control of infection
-NEX
- including OH
Vaccination of at risk groups

Secondary and tertiary prevention
Identify all acute infections: treat those affected, vaccinate contacts at risk
Identify outbreaks: investigate and control them
Identify carriers: treat them, and vaccinate contacts / unborn child at risk
- all infants of infectious mothers
- all IDUs, -vaccinate hshld and sex partners
- all MSM offered vaccine at 1st visit GU
High risk groups for whom selective HBV vaccination is currently recommended

Infants born to infectious mothers - vaccination within 48 hours of birth
Injecting drug users
Individuals who change sexual partners frequently
Close family contacts of a case or carrier
Families adopting children from countries with a high prevalence of hepatitis B
Haemophiliacs
Patients with chronic renal failure
Health care workers
Staff and residents of residential accommodation for those with severe learning disabilities
Other occupational risk groups
Inmates and staff of custodial institutions
Travellers to high prevalence areas
How well is London implementing the recommended interventions?
Coverage hepatitis B vaccine 3rd dose at 12 months: infants born in London to high risk mothers 2002 to 2005
COVER: hepatitis B vaccine coverage in infants born to HBsAg positive mothers
London April-June 2005

PCTs reporting in London: infants at risk 951

Coverage three doses: 82%

-compared with the AISS estimation of the denominator:
prevalence antenatal hepatitis B is ~11/1000
~110,000 births in 2004 in London
at least 1,200 babies at risk
### Hepatitis B vaccine programme coverage in prisons in London 2005

<table>
<thead>
<tr>
<th>Prison</th>
<th>Number prisoners previously vaccinated</th>
<th>Number who received one dose within 1 month of reception</th>
<th>Estimated average throughput</th>
<th>Vaccine coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brixton</td>
<td>52</td>
<td>92</td>
<td>355</td>
<td>41%</td>
</tr>
<tr>
<td>Pentonville</td>
<td>0</td>
<td>16</td>
<td>448</td>
<td>4%</td>
</tr>
<tr>
<td>Wandsworth</td>
<td>0</td>
<td>7</td>
<td>339</td>
<td>2%</td>
</tr>
<tr>
<td>Holloway</td>
<td>0</td>
<td>0</td>
<td>291</td>
<td>0</td>
</tr>
<tr>
<td>Belmarsh</td>
<td>0</td>
<td>19</td>
<td>423</td>
<td>4%</td>
</tr>
<tr>
<td>Feltham</td>
<td>0</td>
<td>88</td>
<td>381</td>
<td>23%</td>
</tr>
<tr>
<td>Target group</td>
<td>Vaccine centrally arranged and funded</td>
<td>Coverage monitoring</td>
<td>Coverage</td>
<td>Estimated lifetime risk HBV infection</td>
</tr>
<tr>
<td>------------------------------------</td>
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<td>---------------------------------------</td>
</tr>
<tr>
<td>Infants of infectious mothers</td>
<td>No</td>
<td>Not complete</td>
<td>COVER 82% (3 doses)</td>
<td>25%</td>
</tr>
<tr>
<td>IDUs</td>
<td>No - but funding allocation</td>
<td>Yes but not complete</td>
<td>Self report 53% (at least one dose~25% three doses)</td>
<td>39%</td>
</tr>
<tr>
<td>MSM</td>
<td>Yes</td>
<td>Good</td>
<td>93% (one dose 45% three doses)</td>
<td>39%</td>
</tr>
</tbody>
</table>
Issues relating to surveillance and public health response - hepatitis B in London

Delays in and non reporting of HBV infections
Real difficulties reaching some communities
Lack of clarity of roles among partners in NHS and other organisations
Not ‘sexy’ – affects less advantaged and less articulate
not all patients referred to specialist hepatology services

Complex contact tracing
– multi-occupancy housing and extended families
– confidentiality
– language barriers

New drug users still becoming infected
NEX have ceiling on number of needles that can be dispensed
Conclusions and actions to improve prevention and control in London

Improve completeness of laboratory reports and participation in reporting
Improve local surveillance through local HPA HPUs
Clarify roles and responsibilities
Support NEX services and increase the number of free needles that can be given out on each occasion
Ensure agreed care pathway for infants born to HBV positive mothers and full course of vaccination
Support prisons and GU services in delivery of vaccine
Ensure patients referred specialist hepatology services
Improve screening and vaccination for household contacts especially children
Support primary care and encourage and assist them in the process of contact screening and vaccination
Thank you for listening