Epidemiology of HCV in the UK

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Epidemiology of HCV infection in the UK

• Hepatitis C infection, the disease and how it is spread
• Extent of hepatitis C infection in the UK
  ➢ prevalence among different population groups
  ➢ prevalence of diagnosed infection
  ➢ estimated burden of hepatitis C infection
Hepatitis C virus

- Acute Infection - 5% symptomatic disease
  - 60-85% develop chronic infection
- Chronic Infection - 5-15% develop cirrhosis by 20 years
- Factors affecting disease progression
  - Age at infection, gender, alcohol and HIV
- Treatment - Pegylated Interferon and Ribavirin
- No Vaccine available
HCV transmission

Health care setting
  HCW
  Patient ↔ Patient

Blood & blood products

Mother to child

Injecting drug use

Tattooing, body piercing

Sexual transmission

Household transmission
HCV prevalence in different populations

- **Health care workers**
  - All staff: 0.2-0.3%
  - EPP staff: 0.2%

- **GUM clinic attenders**
  - Heterosexual males: 0.4-1%
  - Heterosexual females: 0.3-0.7%
  - MSM: 0.6-1.1%

- **Pregnant women**
  - Antenatal attenders: 0.3%
  - Childbearing women: 0.4%

- **Blood donors (2004)**
  - New: 33.46 per 100,000 (0.03%)
  - Repeat: 1.09 per 100,000 (0.001%)

- **Prisoners**
  - Injector inmates: 58%
  - Non-injector inmates: 3.5%

- **IDUs**
  - (50-90%)
Geographical variation in the prevalence of HCV infection among IDUs in the UK

- England, Wales and N Ireland 18-59%
  (UAPMP survey of injectors in contact with drug agencies, 2004)
- Scotland 23-62%
  (Unlinked anonymous survey of injectors having voluntary confidential HIV test 1999/00)
Trends in HCV infection among injecting drug users in the UK

Glasgow
Tayside
Lothian
Grampian
England

IDUs aged <25 years; IDUs who started injecting in the three years prior to participating in the UAPMP survey
Persons reported to be HCV antibody positive in the UK (rate per 100,000 population)

- **England and Wales**
  83 per 100,000 (1 in 1200)
  (Laboratory surveillance of hepatitis C to end 2004)

- **N Ireland**
  62 per 100,000 (1 in 1600)
  (Laboratory surveillance of hepatitis C to Oct 2005)

- **Scotland**
  358 per 10,000 (1 in 280)
  (Surveillance of known hepatitis C antibody cases to end 2003)
Persons reported to be antibody positive by gender, age group and risk factor

<table>
<thead>
<tr>
<th></th>
<th>Scotland</th>
<th>N.Ireland</th>
<th>Eng &amp; Wales</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diagnosed</strong>¹</td>
<td>18 109 (to end 2003)</td>
<td>1055 (to end Oct 2005)</td>
<td>49 819 (to end 2004)</td>
</tr>
<tr>
<td>(% dead)</td>
<td>12%</td>
<td>/</td>
<td>/</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td>67%</td>
<td>63%</td>
<td>68%</td>
</tr>
<tr>
<td><strong>Aged 24-44</strong></td>
<td>66%</td>
<td>52%</td>
<td>64%</td>
</tr>
<tr>
<td><strong>Known risk</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Injected drugs</td>
<td>(n=12 166) 90%</td>
<td>(n=291) 44%</td>
<td>(n=14 221) 88%</td>
</tr>
<tr>
<td>• Blood factor</td>
<td>3%</td>
<td>52%</td>
<td>2%</td>
</tr>
<tr>
<td>• Other²</td>
<td>7%</td>
<td>4%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Unknown risk</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Male</td>
<td>(n=5 943) 65%</td>
<td>(n=764) 59%</td>
<td>(n=35 598) 66%</td>
</tr>
<tr>
<td>• Aged 25-44</td>
<td>61%</td>
<td>65%</td>
<td>61%</td>
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¹ HCV antibody positive; ²Other includes sexual contact, tattoo/body piercing, needlestick, bite, blood spillage, blood transfusion, or perinatal risk
## Burden of hepatitis C virus infection in UK

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<th>England</th>
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</thead>
<tbody>
<tr>
<td>Estimated HCV infected persons</td>
<td>50 000</td>
<td>300 000</td>
</tr>
<tr>
<td>% total population</td>
<td>1%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Diagnosed (%)</td>
<td>18 109 (36%)</td>
<td>49 819 (17%)</td>
</tr>
</tbody>
</table>
Scotland’s epidemiological landscape

- **HCV infected**: 18,000
- **Ever IDU**: 11,000 *
- **Chronic HCV**: 13,100
- **Male**: 12,400
- **Greater Glasgow**: 6,500

*known to have injected drugs*
Summary

• Overall prevalence of HCV infection in the UK is low
• Burden of infection greatest in IDUs
• Many are unaware of their infection
• Incidence of infection among injectors remains high

Challenges in the UK
• Prevention of HCV infection among current IDUs
• Diagnosis of infected persons who most need therapy to prevent progression