### Hepatitis A

#### Ways hepatitis A is spread

**Faecal-oral**
Faeces containing the virus are transferred from the infected person to another person’s mouth.
Most infections in Australia are associated with:
- contaminated food, drink and eating utensils
- hands contaminated via contact with nappies, toys or towels soiled with faeces from an infected person
- oral/anal sexual contact
- sewage-contaminated water or shellfish
- travel to countries where hepatitis A is endemic (always present)
- injecting and non-injecting drug use

#### Course & outcome of infection

**Acute infection**
Symptoms occur in less than 10% of young children and 40 to 70% of adults who become infected.

**Chronic infection**
Does not occur in hepatitis A infection

#### Vaccine or PEP

Yes

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### Hepatitis B

#### Ways hepatitis B is spread

**Blood-to-blood contact**
Most infections in Australia are associated with:
- immigration from a high prevalence country (where hepatitis B is more common)
- sharing injecting equipment
- unprotected sex
- mother-to-baby transmission at or around the time of birth
- child-to-child contact through open sores and wounds
- tattooing or body piercing
- household contact – sharing razors and toothbrushes
- receiving blood or blood products before 1971 when screening commenced for hepatitis B virus

#### Course & outcome of infection

**Acute infection**
Symptoms occur in up to 50% of adults in the period 2 to 3 months after infection.

**Chronic infection**
Develops in:
- 5 to 10% of people infected as adults
- 30 to 50% of children infected under 4 years of age
- 90% of infants infected in the perinatal period

#### Vaccine or PEP

Yes
## Hepatitis C

### Ways hepatitis C is spread

<table>
<thead>
<tr>
<th>Blood-to-blood contact</th>
<th>Course &amp; outcome of infection</th>
<th>Vaccine or PEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most infections in Australia are associated with:</td>
<td><strong>Acute infection</strong></td>
<td>No</td>
</tr>
<tr>
<td>&gt; immigration from a high prevalence country (a country where hepatitis C is more common)</td>
<td>15 to 25% of people will develop symptoms which are usually mild and may include jaundice.</td>
<td></td>
</tr>
<tr>
<td>&gt; sharing injecting equipment</td>
<td><strong>Chronic infection</strong></td>
<td></td>
</tr>
<tr>
<td>&gt; receiving blood or blood products before 1990 when screening commenced for hepatitis C virus</td>
<td>50 to 80% of people remain chronically infected.</td>
<td></td>
</tr>
<tr>
<td>&gt; tattooing, body piercing or acupuncture</td>
<td>25% of this group will develop scarring of the liver (cirrhosis) and some will develop liver cancer</td>
<td></td>
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<tr>
<td>&gt; being a prisoner.</td>
<td></td>
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</tbody>
</table>

### Hepatitis D

### Ways hepatitis D is spread

<table>
<thead>
<tr>
<th>Blood-to-blood contact</th>
<th>Course &amp; outcome of infection</th>
<th>Vaccine or PEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most infections in Australia are associated with:</td>
<td><strong>Acute infection</strong></td>
<td>Yes with hepatitis B vaccine</td>
</tr>
<tr>
<td>&gt; immigration from a high prevalence country (a country where hepatitis B and D are more common)</td>
<td>&gt; In co-infection, acute hepatitis B and D occur simultaneously. Super infection occurs in people already infected with hepatitis B.</td>
<td></td>
</tr>
<tr>
<td>&gt; sharing injecting equipment</td>
<td><strong>Chronic infection</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt; More likely after super infection</td>
<td></td>
</tr>
</tbody>
</table>
Hepatitis E

<table>
<thead>
<tr>
<th>Ways hepatitis E is spread</th>
<th>Course &amp; outcome of infection</th>
<th>Vaccine or PEP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Faecal-oral</strong></td>
<td><strong>Acute infection</strong></td>
<td>No</td>
</tr>
<tr>
<td>Faeces containing the virus are transferred to another person’s mouth.</td>
<td>Symptoms are rare in young children. Disease is usually self-limiting with recovery but can be serious, particularly in pregnant women.</td>
<td></td>
</tr>
<tr>
<td>Most infections in Australia are associated with travel to countries where hepatitis E is endemic (always present).</td>
<td><strong>Chronic infection</strong></td>
<td></td>
</tr>
<tr>
<td>Less commonly, infection can be passed from a pregnant woman to her fetus, or through infected blood transfusion.</td>
<td>Does not occur in hepatitis E infection</td>
<td></td>
</tr>
</tbody>
</table>

**Definitions**

**Post exposure prophylaxis (PEP)**
Antibiotics, vaccination or immunoglobulin (a solution containing human antibodies that is made from blood products) may be offered to contacts after exposure to some infectious diseases. A contact is any person who has been close enough to an infected person to be at risk of having acquired the infection from that person. PEP may prevent the development of the infection during the incubation period, make the infection less severe if it does develop, or reduce the risk of the infection being passed on to other people.

**Acute infection**
An acute infection occurs when symptoms show up soon after the person is infected (usually within days or weeks). Symptoms may include abdominal discomfort, nausea, fever, fatigue, sometimes followed by jaundice (yellow skin and eyes).

**Chronic infection**
There may be no symptoms but the person remains infected. Chronic infection may lead to cirrhosis (scarring of the liver), liver failure or liver cancer in some people.