HEPATITIS B

PREPARATION
As vaccination is, ideally, given immediately after birth, discover mother’s hepatitis B status before birth

Antenatal
- If maternal diagnosis known during antenatal period, midwife to inform obstetrician, neonatologist, public health team and GP of plan to immunise
- Hepatitis B immunoglobulin (HBIG) issued by Health Protection Agency (HPA) via local consultant microbiologist. Order well in advance of birth

Labour
- When an HBsAg +ve mother arrives in labour or for caesarean section, labour ward must inform on-call neonatal team

Postnatal
- For all newborns, check antenatal screening results for mother’s tests
- If antenatal testing not done (e.g. concealed pregnancy) request urgent maternal hepatitis B virus surface antigen (HBsAg) test

COMMUNICATION
- Give mother information about hepatitis B, modes of transmission and prevention of spread
- Mother may breastfeed

IMMEDIATE POSTNATAL TREATMENT OF BABY
To which babies

<table>
<thead>
<tr>
<th>Maternal status</th>
<th>Vaccine required by baby</th>
<th>Immunoglobulin (HBIG) required by baby</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBsAg positive, HbeAg positive</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>HBsAg positive, HBeAg negative, HBe antibody (anti-HBe) negative</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>HBsAg positive where e markers have not been determined</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Acute hepatitis B during pregnancy</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>HBsAg positive and baby &lt;1.5 kg</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>HBsAg positive, anti-HBe positive</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>HBsAg positive and &gt;10^6 iu/mL Hepatitis B DNA in antenatal sample</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Other high risk group</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

- Give low birth weight and premature babies full neonatal dose hepatitis B vaccine
- Give HBIG and hepatitis B vaccine to babies with birth weight <1.5 kg born to mother with hepatitis B, regardless of mother’s HBeAg status
- Give hepatitis B vaccine to HIV exposed/infected neonates

When
- Give within 24 hr of birth, ideally as soon as possible after delivery
Hepatitis 2009-11

What
- Give hepatitis B vaccine 0.5 mL IM. **Caution:** brands have different doses (e.g. Engerix B 10 microgram, HBVaxPro Paediatric® 5 microgram)
- HBIG 2 mL (whole ampoule) 200 units additionally given for babies of highly infectious mothers (see table above)

How
- Use two separate injection sites for hepatitis B vaccine and HBIG, in anterolateral thighs (not buttocks)
- Give hepatitis B vaccine IM, except in bleeding disorder where it may be given deep subcutaneously

Relationship to other immunisations
- No need to delay BCG following HBIG
- Hepatitis B vaccine may be given with other vaccines, but use separate site. If same limb used, give vaccines >2.5 cm apart

**SUBSEQUENT MANAGEMENT**

Further doses
- GP to give subsequent doses of hepatitis B vaccine:
  - second dose at 1 month
  - third dose at 2 months
  - fourth dose at 12 months

1 year follow-up
- Check child’s HBsAg status at one year old (to assess if chronic carrier, or vaccine was effective). This testing can be carried out at same time as fourth dose
- if a carrier, refer to liver team for further management

**ROUTINE HEPATITIS IMMUNISATION**

To whom
- Hepatitis B immunisation recommended with other routine immunisations for high-risk babies born to mothers:
  - with partners who are hepatitis B surface antigen (HBsAg) positive
  - with partners who are intravenous drug users (even if HBsAg negative)
  - who change sexual partners frequently (e.g. commercial sex workers)
  - with close family contacts known to be HBsAg positive
  - who intend to live in a country with high prevalence of hepatitis B (Africa, Asia, Eastern Europe, Northern Canada, Alaska)

Dose regimen
- Vaccine is given at 0, 1 and 2 months (inform GP to give subsequent doses)
- Further 12 month dose is recommended for those at continued risk
- All neonates born to mothers with HIV
  - if mother HBsAg +ve, first dose within 24 hrs, 2nd dose at 1 month, 3rd at 6 months and 4th at 12 months
  - if mother HBsAg –ve, 1st dose before discharge, 2nd at 1 month and 3rd at 6 months
- advise GP of schedule or give in hospital