Guidelines for Hepatitis B Virus vaccination and combined Hepatitis A/B vaccination in Sexual Health Settings

What's New

There are no changes to this guideline.

Please note that vaccine dosage and the checking of titres will differ in HIV positive patients. This guidance is for HIV negative individuals only.

It is recommended that GP communication is made for anyone found to be cAb positive as there is a risk of reactivation if the individual becomes immunosuppressed.

1. **Aims**
   - To reduce the transmission of Hepatitis B (HBV) among people in at risk groups through pre-exposure/ early post-exposure immunisation
   - To advise on where it is appropriate to offer Hepatitis A (HAV) vaccination combined with HBV vaccination where the risk groups overlap

2. **Risk Groups where HBV Vaccination is Recommended within a Sexual Health Setting**
   - People who inject drugs (PWID)*
   - Men who have sex with men (MSM)*
   - Those involved in the commercial sex industry*
   - Individuals having sex with partners from areas of high/ intermediate prevalence[+]
   - HIV positive individuals*
   - Sexual partners of individuals with ongoing risk of HBV acquisition
   - Sexual contacts of those diagnosed with acute or chronic HBV infection[#]
   - Individuals who have been sexually assaulted in the previous 6 weeks
   - Individuals with a high risk sexual exposure within the previous 6 weeks
   - Individuals who change sexual partners frequently

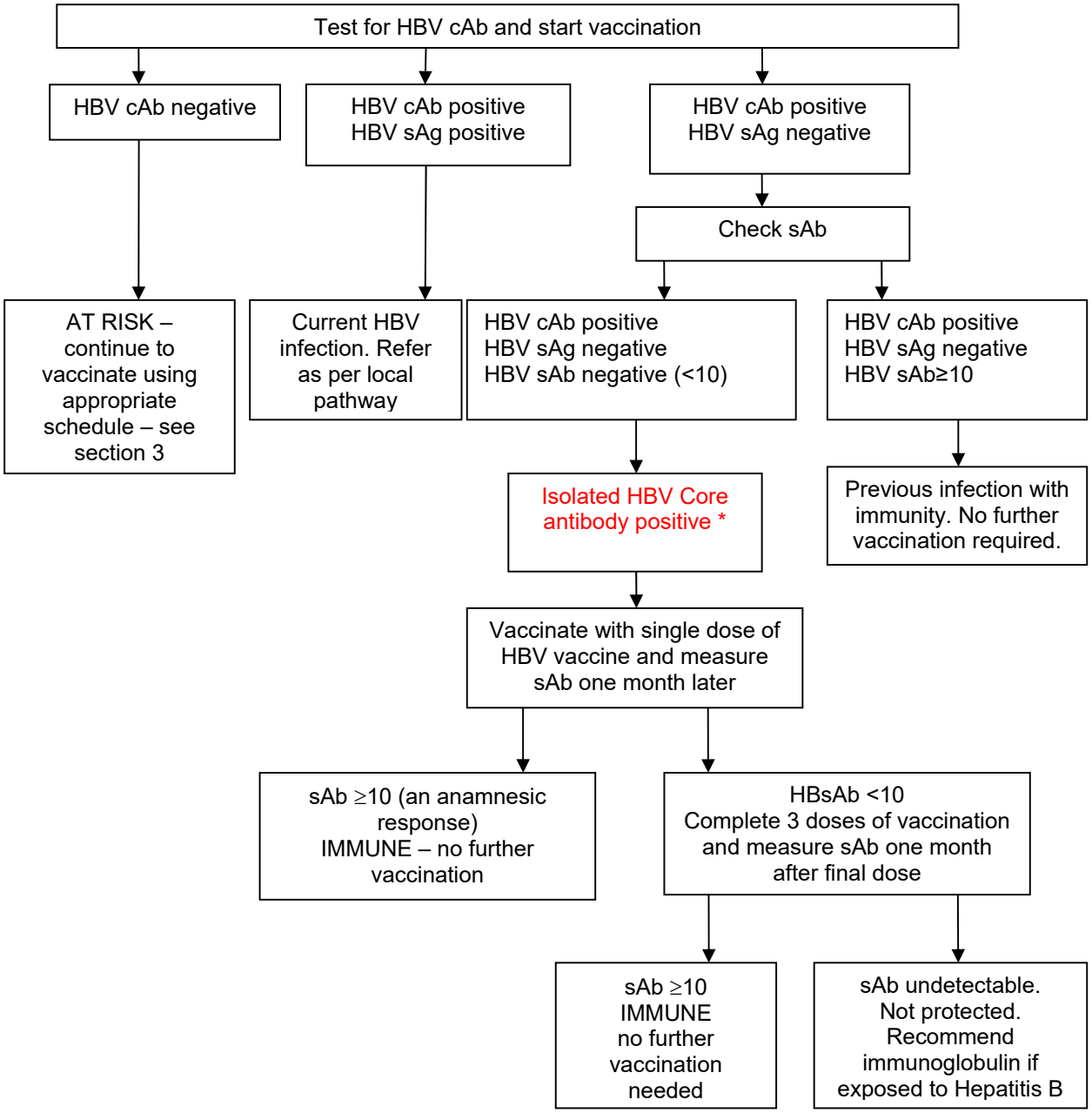
*At increased risk of HAV infection, therefore combined HAV/HBV vaccine should be given

[+] WHO has categorised countries based on the prevalence of Hepatitis B surface Antigen (HBsAg) into countries which are:
   - High prevalence (more than 8%): Sub-Saharan Africa, most of Asia and the Pacific Islands
   - Intermediate prevalence (2 to 8%): The Amazon, southern parts of Eastern and Central Europe, the Middle East and the Indian sub-continent
   - Low prevalence (less than 2%): Most of Western Europe and North America and Australasia

[#]Any sexual partner of an individual with infectious Hepatitis B should be offered vaccination **in addition to** Hepatitis B Immunoglobulin (HBIG) if the last sexual contact was within one week.

Pathway for vaccination of an individual at risk of Hepatitis B with no previous vaccination history

sAb: surface Antibody **sAg:** surface Antigen **cAb:** core Antibody **eAb:** envelope Antibody



***Possible causes of Isolated positive HBV cAb**

1. False positive – this is more likely in someone with no risk factors for HBV
2. Early resolving infection when sAg has gone and sAb is about to develop
3. Resolved Hepatitis B with waning sAb titres (often eAb is positive too)
4. Occult HBV infection – this occurs rarely. There is low level virus but no detectable sAg. Hepatitis B infection may reactivate especially in those who are immunosuppressed. Further discussion should involve local Hepatologist and viral lab and consideration given to further tests. The GP should be notified of the outcome of such discussions.

3. Schedules and when to use them

The choice of schedule depends on how fast protection is required but also should consider vaccine availability and also other vaccinations being given at similar times (eg: HPV).

Schedules are as follows:

- **Standard:** 0, 1 and 6 months (3 doses)
- **Accelerated:** 0, 1, 2 and 12 months (4 doses)
- **Ultra-Rapid:** 0, 1 and 3 weeks and 12 months (4 doses)

Although these are the licensed intervals, any gap of more than a week between the 1st and 2nd injections and more than 2 weeks between 2 and 3 injections would be acceptable.

➢ **Young People** – For those under 16 years, see WoS guidance: '*Young people - Common STIs and other genital infections in 12 to 15 year olds'*

➢ **Hepatitis A protection** - If dual vaccination for HAV/HBV is given as an Ultra-Rapid Schedule it will provide more rapid protection against Hepatitis B than other schedules but full protection against Hepatitis A will be provided later than with vaccines containing a higher dose of Hepatitis A (Havrix contains 1440iu Hepatitis A per vaccine, Twinrix contains 720iu Hepatitis A)

➢ **Incomplete vaccination** – Evidence suggests that if vaccine courses are not completed in immunocompetent patients, the outstanding doses can be given 4 or more years later without the need to restart a 3 dose course. One or 2 doses of vaccine may provide immunity in 40% and over 90% of immunocompetent patients respectively.

4. Checking vaccination response

Approximately 10-15% of adults fail to respond or respond poorly to 3 doses of vaccine.

The role of titres and booster doses
Sexual health services should follow the procedure which has been adopted in their board to address the issue of titre checks and booster doses as published national guidance is contradictory.

BASHH guidelines published in 2017 recommend testing for response in all patients who have been vaccinated.

- Those at high risk of Hepatitis B infection are likely to have received a 0, 7, 21 day and 12 month (or 0,1,2,12 month) schedule and a test for response to vaccination can be done 4-12 weeks after the third dose
- For those at lower risk of Hepatitis B irrespective of the schedule adopted a test for response to vaccination can be delayed until 4-12 weeks after the final dose

The aim is for surface antibody titre >10 iu/l but it is preferable to achieve levels > 100 iu/l. Based on the result further doses should be considered.

The '***Green Book'*** – *Immunisation against infectious disease*, updated online 2017 does not recommend testing Hepatitis B surface antibody titres except in those at continued occupational risk and those with renal failure. **They do** recommend that all at continuing risk of infection should be offered a single booster dose of vaccine once only - around five years after the primary immunisation. Measurement of Hepatitis B surface antibody titres is also not required before or after this booster dose.