

HBV vaccination in HIV patients in Beaumont Hospital: how often is HBsAb repeated post vaccination.

Ayat Alharbi

Department of Infectious Diseases, Beaumont Hospital

Background:

HBV vaccine is a yeast derived vaccine which is prepared with biosynthetic surface antigen made using recombinant technology.

Approximately 80–90% of healthy young adults achieve HBV surface antibody (HBsAb) levels >10 IU/L after a complete vaccine course. Antibody levels >100 IU/L are regarded as ideal whereas a level <10 IU/L is classified as non-response.

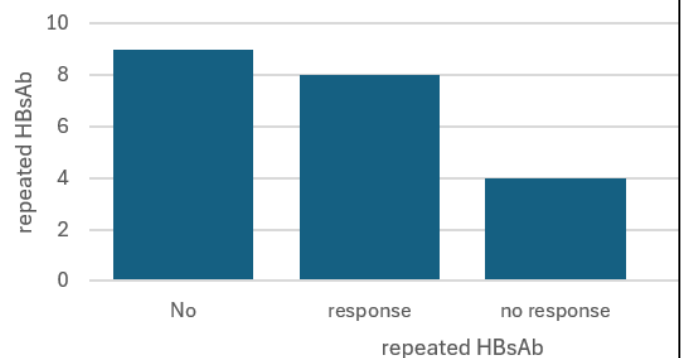
As per BHIVA guidelines, it is recommended that HIV-positive adults be screened for evidence of HBV infection or immunity, and that non-immune individuals (HBsAg negative, HBcAb negative, HBsAb negative) be offered HBV vaccination.

Aim: This audit aims to explore the effectiveness and guidelines adherence of HBV vaccination of HIV patients in Beaumont Hospital who are found to be non-immune and specifically to look at the rate of repeating HBsAb level after receiving hepatitis B vaccine.

Methods:

50 medical charts were retrospectively reviewed for patients attending HIV clinic in Beaumont Hospital between 2019-2024.

HIV Patients with anti-HbS less than 10 and number of repeated HbsAb



Results:

- 1) Out of 50 patients that were audited, 23 patients (46%) showed evidence HBsAb to be less than 10.
- 2) Out of the 23 patients who had HBsAb <10 , 4 patients had positive HbcAb (evidence of immunity from previous infection) and didn't require hepatitis B vaccination.
- 3) All of the remainder 19 patients who had evidence of non-immunity (HBcAb negative and HBsAb less than 10) received the typical course of hepatitis B vaccination. 3 patients received Twinrix vaccine (combined hepatitis A and B vaccine) and 16 patients received Engerix-B vaccine.
- 4) Out of the 19 patients who received Hepatitis B vaccine whether in the form on Twinrix or Engerix-B, 9 patients (47.3%) didn't have a repeated HBsAb test.
- 5) Out of the 10 patients who had repeated HBsAb test after hepatitis B vaccination, 4 patients showed evidence of no response (HBsAb <10) and three of these received a booster dose of hepatitis B vaccine.

Conclusion: Adherence to guidelines is encouraged regarding repeating HBsAb level after receiving three doses course of hepatitis B vaccine.