FIGURE 3. Algorithm for HBV Pre-Vaccination Screening and Vaccination in HIV-Infected Patients

Screen for anti-HBs, HBsAg, and anti-HBc prior to vaccination

Anti-HBs(+) ≥10 IU/L with HBsAg(−) and anti-HBc(−/+)

Negative for all serologies

Anti-HBc(+)/anti-HBs(−)/HBsAg(−)

HBsAg(+) for >6 months

Test for HBV DNA

HBV DNA(−)

HBV DNA(+)

Assess for treatment of chronic HBV

VACCINATE

Test for immune response 1 to 2 months after the last dose of the vaccination series

Patient Considered Immune

Yes Anti-HBs ≥10 IU/L No

RE-VACCINATE (using double dose)∗

Test for immune response 1 to 2 months after the last dose of the re-vaccination

Patient Considered Immune

Yes Anti-HBs ≥10 IU/L No STOPb

∗ Based on available evidence, a four-dose schedule should also be considered. Re-vaccination can be deferred in patients initiating ART until CD4 count is ≥200 cells/mm³; re-vaccination should not be delayed in pregnant patients or those who are unlikely to experience immune reconstitution of ≥200 cells/mm³.

b A patient who is negative for all serologies and who does not respond to re-vaccination may be a primary nonresponder or have chronic infection. HBV DNA testing may be used to detect the presence of chronic HBV infection.

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