### Table 14: SUMMARY OF RECOMMENDED VACCINES FOR ADULTS WITH HIV

<table>
<thead>
<tr>
<th>Vaccine Trade Name</th>
<th>Indications</th>
<th>Administration and Revaccination</th>
<th>Comments</th>
</tr>
</thead>
</table>
| *Haemophilus Influenza* Type B Conjugate (Hib) | Patients with HIV who:  
  - Are HAV IgG negative and at risk of HAV infection and related morbidity and mortality  
  - Seek protection against HAV  
  - Are MSM  
  - Have chronic liver disease or conditions that can lead to chronic liver disease  
  - Travel to countries with high or intermediate endemicity of infection  
  - Use and inject illicit drugs  
  - Live in a community experiencing an outbreak of HAV infection  
  - Have a clotting-factor disorder  
  - Are at occupational risk of HAV infection | - Administer according to CDC guidelines for all adults  
  - Revaccination: None | - Not routinely recommended for people with HIV in the absence of other risk factors |
| **Hepatitis A (HAV)** | - HAV: Havrix, Vaqta  
  - HAV inactivated + HBV: Twinrix | **In adults with CD4 cell counts ≥200 cells/mm³ who do not have evidence of HAV immunity, as determined by CDC guidelines for all adults** | **In adults with CD4 cell counts ≥200 cells/mm³ who do not have evidence of HAV immunity, as determined by CDC guidelines for all adults** |
| **Hepatitis B (HBV)** | Patients who are negative for anti-HBs and do not have chronic HBV infection; see NYSDOH AI HBV-HIV Coinfection Guideline, Figure 3 | - Administer according to CDC guidelines for all adults  
  - Alternative administration strategies, such as a 3- or 4-injection double-dose vaccination series or an accelerated schedule of 0, 1, and 3 weeks, may be considered  
  - Test for anti-HBs 1 to 2 months after administration of the last dose of the vaccination series  
  - Revaccination: Nonresponders to the primary HBV vaccination series should be revaccinated and counseled to avoid exposure  
  - Revaccination: None | - In patients at risk for HBV infection, initial vaccination should not be deferred if CD4 cell count <200 cells/mm³  
  - If an accelerated schedule is used, a 4th dose booster should be administered at least 6 months after initiation of the series; the accelerated schedule is not recommended for patients with CD4 counts <500 cells/mm³  
  - The HAV/HBV combined vaccine is not recommended for the double-dose or 4-injection HBV vaccination strategy  
  - A two-dose (1 month apart) recombinant HBV surface antigen vaccine with a novel adjuvant (HEPLISAV-B) is available. There are no data available on use among people with HIV in the absence of other risk factors |
| **Human Papillomavirus (HPV)** | All patients aged 9 to 26 years who were not previously vaccinated or did not receive a complete three–dose series | - Administer through age 26 years as a three–dose series according to CDC guidelines for all adults  
  - Revaccination: None | - A two-dose schedule is not recommended  
  - Because of the broader coverage offered by the 9-valent HPV vaccine, it is the only HPV vaccine currently available in the United States (see CDC HPV Vaccine Information for Clinicians for more information)  
  - Although the 9-valent vaccine has not been specifically studied in people with HIV, it is expected that the response will be the same in this population as with the 4-valent vaccine  
  - Follow recommendations for cervical and anal cancer screening in women with HIV and men who have received the HPV vaccine  
  - Covered by the Vaccine Injury Compensation Program* |
| **Influenza** | For all patients, as determined by CDC guidelines for all adults | - Administer annually during flu season (October through May) according to CDC guidelines for all adults  
  - Revaccination: None | - Covered by the Vaccine Injury Compensation Program* |
| **Measles, Mumps, and Rubella (MMR)** | For patients with CD4 cell counts ≥200 cells/mm³ who do not have evidence of MMR immunity, as determined by CDC guidelines for all adults | Two doses at least 28 days apart  
  - Revaccination: Recommended only in the setting of an outbreak  
  - Contraindicated for patients with CD4 counts <200 cells/mm³  
  - MMRV should not be substituted for MMR  
  - Those who previously received two doses of a mumps-containing vaccine and are at increased risk for mumps in the setting of an outbreak should receive a third dose to improve protection against mumps disease and related complications  
  - Covered by the Vaccine Injury Compensation Program* |

*See NYSDOH AI HAV–HIV Coinfection Guideline*
### Table 14: (see Tables 1–13 for source and reference information for individual vaccines)

<table>
<thead>
<tr>
<th>Vaccine Trade Name</th>
<th>Indications</th>
<th>Administration and Revaccination</th>
<th>Comments</th>
</tr>
</thead>
</table>
| **Meningococcal Serotype Non–B (Men–ACWY)** | • All patients with HIV  
  • See NYSDOH Health Advisories on Meningococcal Disease | • Administer two doses of MenACWY at least 8 weeks apart in those not previously vaccinated  
  • For those previously vaccinated with one dose of MenACWY, administer the 2nd dose at the earliest opportunity at least 8 weeks after the previous dose  
  • Revaccination: Administer one booster dose of MenACWY every 5 years | • MenACWY is preferred over MPSV4 in adults with HIV >55 years of age  
  • Covered by the Vaccine Injury Compensation Program* |
| MenACWY: Menactra  
MCV4: Menveo | | | |
| **Meningococcal Serotype B (MenB)** | • Patients at risk of MenB infection, as determined by CDC guidelines | • Administer according to CDC guidelines for patients at risk  
  • Revaccination: None | • Not routinely recommended for people with HIV in the absence of other risk factors  
  • Covered by the Vaccine Injury Compensation Program* |
| Bexsero; Trumenba | | | |
| **Pneumococcal** | • All patients with HIV | • The complete series of vaccinations is one dose of PCV13 and two doses of PPSV23 before age 65 years, followed by one additional dose of PPSV23 after age 65 years  
  • See Table 10 for detailed administration guidelines based on age and previous vaccination history | • The PCV13 vaccine should not be deferred for patients with CD4 count <200 cells mm3 and/or detectable viral load; however, the follow-up secondary administration of PPSV23 vaccine may be deferred until the patient’s CD4 count is >200 cells mm3 and/or viral load is undetectable |
| 13–valent: Prevnar 13 (PCV130)  
23–valent: Pneumovax 23 (PPSV23) | | | |
| **Tetanus, Diphtheria, and Pertussis (Tdap) and Tetanus–Diphtheria (Td)** | • For all patients, as determined by CDC guidelines for all adults | • Administer according to CDC guidelines for all adults  
  • Revaccination: None | • Covered by the Vaccine Injury Compensation Program* |
| Tdap: Adacel; Boostrix  
Td: Tenivac; Decavac (generic 9Td) | | | |
| **Varicella** | • Varicella: Varivax  
  • MMR + varicella: ProQuad | • For patients with CD4 cell counts ≥200 cells/mm3 who do not have evidence of immunity to varicella, as determined by CDC guidelines for all adults | • Contraindicated for patients with CD4 counts <200 cells/mm3  
  • Anti–varicella IgG screening should be performed in patients with no known history of chickenpox or shingles  
  • MMVR should not be used  
  • Antiviral agents should be avoided at least 24 hours before and 14 days after administration  
  • An interval of at least 5 months is recommended between administration of post–exposure varicella IgG (VarizIG) and varicella vaccination  
  • Clinical disease due to varicella after vaccination, a very rare event, should be treated with acyclovir  
  • Covered by the Vaccine Injury Compensation Program* |
| | | • Administer according to CDC guidelines for all adults  
  • Revaccination: None | |
| **Zoster** | • MCCC recommendation: Patients with HIV ≥50 years of age (AII) | • Two IM doses, spaced 2 to 6 months apart, regardless of past receipt of ZVL  
  • See CDC information on administering Shingrix  
  • Perform anti–varicella IgG screening in patients with no known history of chickenpox or shingles  
  • Revaccination: None | • RVZ is preferred over ZVL (AII)  
  • RVZ provides strong protection against shingles and post–herpetic neuralgia. Currently, there are no data on efficacy specific to people with HIV; however, superior efficacy and longer duration of protection have been demonstrated among the elderly, and a recombinant vaccine is preferred people with HIV  
  • In addition, immunogenicity and safety following a 3–dose schedule has been demonstrated among people with HIV infection.  
  • Note: RVZ is administered IM in distinction to ZVL which is delivered by SQ injection. |
| RZV: Shingrix—PREFERRED  
For information on ZVL (brand name Zostavax), see Table 13 | | | |

CDC: Centers for Disease Control and Prevention; MMR: measles, mumps, and rubella; NYSDOH AI: New York State Department of Health AIDS Institute; RZV: recombinant zoster vaccine; ZVL: zoster vaccine live.  
*Vaccine injury compensation program: Tel: 1–800–338–2382; U.S. Court of Federal Claims, 717 Madison Place, NW, Washington DC 20005