Supplementary Online Content

Ghaswalla PK, Marshall GS, Bengtson LGS. Meningococcal vaccination rates among people with a new diagnosis of HIV infection in the US. *JAMA Netw Open.* 2022;5(4):e228573. doi:10.1001/jamanetworkopen.2022.8573

eTable. ACIP Recommendations for MenACWY Vaccination for People with HIV Infection

eReferences.

eFigure 1. Study Flow Chart

eFigure 2. Plain Language Summary

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable. ACIP Recommendations for MenACWY Vaccination for People with HIV Infection^{1,2}

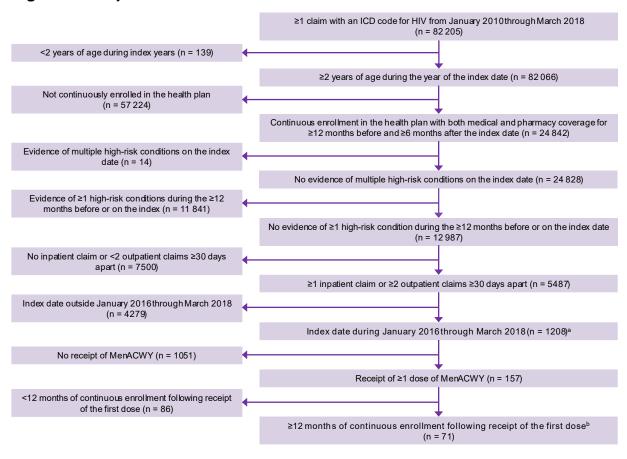
Vaccine	Recommendations
Primary vaccination	
MenACWY-CRM	Dose 1 at age 8 weeks: 4-dose series at 2, 4, 6, 12 months
	 Dose 1 at age 3–6 months: 3- or 4-dose series (dose 2 [and dose 3 if applicable] ≥8 weeks after previous dose until a dose is received at age ≥7 months, followed by an additional dose ≥12 weeks later and after age 12 months)
	 Dose 1 at age 7–23 months: 2-dose series (dose 2 ≥12 weeks after dose 1 and after age 12 months)
	Dose 1 at age ≥24 months: 2-dose series ≥8 weeks apart
MenACWY-D	Age 9–23 months: not recommended
	Age ≥24 months: 2-dose series ≥8 weeks apart
MenACWY-TT	• Dose 1 at age ≥24 months: 2-dose series ≥8 weeks apart
Boosters	If the person remains at increased risk:
	 Aged <7 years: single dose 3 years after primary vaccination and every 5 years thereafter
	 Aged ≥7 years: single dose at 5 years after primary vaccination and every 5 years thereafter

ACIP, Advisory Committee on Immunization Practices; HIV, human immunodeficiency virus; MenACWY, meningococcal A, C, W, Y; MenACWY-CRM, MenACWY oligosaccharide diphtheria CRM197 conjugate vaccine; MenACWY-D, MenACWY polysaccharide diphtheria toxoid conjugate vaccine; MenACWY-TT, MenACWY polysaccharide tetanus toxoid conjugate vaccine.

eReferences.

- 1. Centers for Disease Control and Prevention (CDC). Recommended child and adolescent immunization schedule for ages 18 years or younger, United States, 2021. Accessed November 12, 2021. https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html
- **2.** Mbaeyi SA, Bozio CH, Duffy J, et al. Meningococcal vaccination: Recommendations of the Advisory Committee on Immunization Practices, United States, 2020. *MMWR Recomm Rep.* 2020;69(9):1-41. doi: 10.15585/mmwr.rr6909a1

eFigure 1. Study Flow Chart



Abbreviations: HIV, human immunodeficiency virus; ICD, International Classification of Diseases; MenACWY, meningococcal serogroups A, C, W, Y vaccine; n, number of people.

^a Eligible for primary analyses (ie, receipt of ≥1 dose of MenACWY).

^b Eligible for secondary analyses (ie, receipt of ≥2 doses of MenACWY).

Plain Language Summary

What is the context?



- Invasive meningococcal disease usually causes severe sequelae and has a high mortality rate.
- People with human immunodeficiency virus (HIV) infection are at increased risk of meningococcal disease.

 In the United States (US), the Centers for Disease Control and Prevention's advisory committee has recommended that individuals with HIV infection receive two doses of a meningococcal serogroups A, C, W, and Y vaccine (MenACWY) since 2016.

What is new?

- In this study we:
 - Analyzed US health insurance data during January 2016 to March 2018.
 - o Identified patients 2 years of age or older who were newly diagnosed with HIV infection.
 - Evaluated how many individuals received a first dose of MenACWY and how long after their diagnosis they received it.
- Evaluated the same factors regarding the second dose of MenACWY.
- We found that:
 - Only 16.3% of individuals received a first dose of MenACWY within 2 years of a new HIV diagnosis.
 - Among these, 66.2% received a second dose within 1 year.
 - Vaccination was more likely among:
 - people who had received pneumococcal vaccination.
 - people who attended a well-care visit.
 - people who resided in the West or Midwest regions (vs. South).
 - men.

What is the impact?



- Patients with HIV and clinicians should be educated about the risk of meningococcal disease and the need for vaccination.
- More awareness on MenACWY vaccination recommendations for patients with HIV is needed, as clinicians can play a key role
 in increasing vaccination coverage in this at-risk population.