

Guideline Update: Statins for Primary Prevention of Cardiovascular Disease for Persons with HIV

Brian R. Wood, MD

Medical Director, MWAETC Project ECHO

Associate Professor of Medicine, Division of Allergy and Infectious Diseases

University of Washington

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Case

- 50-year-old patient, well-controlled HIV on BIC/TAF/FTC
- No diabetes, HTN, tobacco, or other meds
- Estimated 10-year ASCVD risk: **3.7%**
- How would you counsel about pros/cons of starting a statin?

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Statin Therapy for People with HIV

Persons with HIV and Low-Intermediate (<20%) ASCVD* Risk Estimate

Age 40-75 Years

- ASCVD 10-Year Risk Score 5-20% **(AI)**
- ASCVD 10-Year Risk Score <5% **(CI)**

Moderate-Intensity Statin

- Pitavastatin: 4 mg once daily **(AI)**
- Atorvastatin: 20 mg once daily **(All)**
- Rosuvastatin: 10 mg once daily **(All)**

Age <40 Years

Insufficient data for recommendation

*Abbreviations: ASCVD = atherosclerotic cardiovascular disease

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Number Needed to Treat Over 5 Years (NNT ₅) Based on REPRIEVE		
10-Year ASCVD* Risk Score	N	NNT ₅
>10%	563	35
5 to 10%	2,995	53
2.5 to <5.0%	2,065	149
0 to <2.5%	2,156	199
Overall	7,769	106

*Abbreviations: ASCVD = atherosclerotic cardiovascular disease

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Persons Age 40-75 with Estimated ASCVD 10-Year Risk Score <5%

Consider HIV-related factors that may increase ASCVD risk:

- Prolonged duration of HIV infection, delayed antiretroviral therapy initiation
- Long periods of HIV viremia and/or treatment nonadherence
- Low current or nadir CD4 T lymphocyte cell count (e.g., <350 cells/mm³)
- Exposure to older antiretroviral drugs associated with cardiometabolic toxicity
- Coinfection with hepatitis C

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Age 40 to 75 with: ≥20% 10-year ASCVD risk	<ul style="list-style-type: none">• Initiate high-intensity statin
Age 20 to 75 with: LDL ≥190 mg/dL	<ul style="list-style-type: none">• Initiate high-intensity statin at maximum dose tolerated
Age 40 to 75 with: diabetes mellitus	<ul style="list-style-type: none">• Initiate at least moderate-intensity statin; perform further risk assessment to consider using high-intensity statin

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Atorvastatin 40-80 mg QD Rosuvastatin 20-40 mg QD	Pitavastatin 4 mg QD Atorvastatin 20 mg QD Rosuvastatin 10 mg QD Simvastatin 20-40 mg QD Pravastatin 40-80 mg QD Lovastatin 40-80 mg QD Fluvastatin XL 80 mg QD Fluvastatin 40 mg BID	Simvastatin 10 mg QD Pravastatin 10-20 mg QD Lovastatin 20 mg QD Fluvastatin 20-40 mg QD

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Pitavastatin	<ul style="list-style-type: none">• No data with EVG/c, ATV/c, DRV/c, or FTR; use standard dose and monitor
Atorvastatin	<ul style="list-style-type: none">• Do not exceed 20 mg daily with EVG/c, DRV/c, or DRV/r• Avoid with ATV/c• Monitor for adverse effects with ATV, ATV/r, FTR• EFV and ETR may decrease concentrations
Rosuvastatin	<ul style="list-style-type: none">• Monitor for adverse effects with EVG/c, DRV/r, FTR• Do not exceed 20 mg per day with DRV/c• Do not exceed 10 mg per day with ATV, ATV/r, ATV/c

Abbreviations: EVG/c = elvitegravir/cobicistat, ATV/c = atazanavir/cobicistat, DRV/c = darunavir/cobicistat, darunavir/r = darunavir with ritonavir, ATV/r = atazanavir with ritonavir, FTR = fostemsavir, EFV = efavirenz, ETR = etravirine, FTR = fostemsavir

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- Cardiovascular risk estimator tools:
 - ACC ASCVD Risk Estimator Plus:
<https://tools.acc.org/ascvd-risk-estimator-plus/#!/calculate/estimate/>
 - AHA PREVENT:*
<https://professional.heart.org/en/guidelines-and-statements/prevent-calculator>
What's new? No race coefficient; age range starts at 30; options for including HbA1C, eGFR, albuminuria, zip code, BMI; estimate of heart failure risk

*See also: Larkin H, et al. *JAMA*. 2024;331(4):277-279.

Case

- 50-year-old patient, well-controlled HIV on BIC/TAF/FTC
- No diabetes, HTN, tobacco, or other meds
- HIV hx: dx 10 years ago, CD4 nadir 250, started ART soon after
- ACC Risk Estimator Plus:
 - 10-year estimated ASCVD risk: **3.7%**
 - Lifetime estimated ASCVD risk: **36%**
- AHA PREVENT:
 - 10-year estimated ASCVD risk: **1.5%**
 - 30-year estimated ASCVD risk: **10.0%**

Summary

- Consider statins for primary CVD prevention! Conversation about statins and CVD risk should be routine
- Strong recommendation for at least moderate intensity statin for PWH age 40 to 75 with 10-year risk estimates 5 to 20%
- Age 40 to 75 and risk <5%: consider HIV history and non-HIV-related risk factors, plus lifetime risk and personal preference

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