

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

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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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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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Recommendations for General Population (Including People with HIV): Indications for High-Intensity Statin

Indication	Recommendation
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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High-, Moderate-, and Low-Intensity Statin Therapy		
High-Intensity Lowers LDL-C by $\geq 50\%$	Moderate-Intensity Lowers LDL-C by 30-49%	Low-Intensity Lowers LDL-C by $< 30\%$
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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Statin-ARV Drug-Drug Interactions

Recommended Statins	ARV Interaction Cautions & Considerations
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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