

Pharmacotherapy for dyslipidemia in HIV-infected individuals

Recommendations for choice of initial drug therapy for dyslipidemia in HIV-infected individuals receiving antiretroviral therapy¹

Lipid abnormality	Therapy	
	First choice	Alternatives
Elevated LDL cholesterol (LDL-c) level or elevated non-HDL cholesterol level with triglyceride level of 200–500 mg/dL (2.26–5.65 mmol/L)	Statin	Fibrate or niacin
Triglyceride level >500 mg/dL (>5.65mmol/L)	Fibrate	Niacin or fish oils

Drugs used to lower LDL-c²

Drug class	Drug	Dose (mg QD)	Expected range of LDL-c reduction, mmol/L (mg/dL)	Side effects	Advice on use of statin together with ART	
					Use with PI/r	Use with NNRTI
Statin*	atorvastatin	10–80	1.5–2.5 (60–100)	Gastrointestinal symptoms, headache, insomnia, rhabdomyolysis (rare) and toxic hepatitis	Start with low dose [†] (max: 40mg)	Consider higher dose [‡]
	fluvastatin	20–80	0.8–1.5 (35–60)		Consider higher dose [‡]	Consider higher dose [‡]
	pravastatin	20–80	0.8–1.5 (35–60)		Consider higher dose ^{‡§}	Consider higher dose [‡]
	rosuvastatin	5–40	1.5–2.5 (60–100)		Start with low dose [†] (max: 20mg)	Start with low dose [†]
	simvastatin	10–40	1.5–2.5 (60–100)		Contraindicated	Consider higher dose [‡]
Cholesterol uptake↓	ezetimibe	10	0.2–0.5 (10–20)	Gastrointestinal symptoms	No known drug-drug interactions with ART	

*A statin is preferred first-line therapy; different statins have variable intrinsic LDL-c lowering ability²

† The ART drug may inhibit (statin toxicity, ↓ dose)

‡ The ART drug may induce the excretion of the statin (=less effect of statin, ↑ dose gradually to achieve expected benefit)

§ **Exception:** If used with **DRV/r**, start with lower dose of **pravastatin**

Treatment goals²

Target*	Total cholesterol	LDL-c [†]
Optimal, mmol/L (mg/dL)	≤4 (155)	≤2 (80)
Standard, mmol/L (mg/dL)	≤5 (190)	≤3 (115)

*Target levels are to be used as guidance and are not definitive. Targets for triglyceride levels are not included in the above table because of the uncertainty of any cardiovascular risk from elevated triglycerides and hence whether to treat this condition.

† In case LDL cannot be calculated because of high triglyceride levels, the non-HDL cholesterol (total cholesterol minus HDL-c) target should be used, which is 0.8 mmol/L (30 mg/dL) higher than the corresponding LDL-c target.

References

1. Dubé MP, Stein JH, Aberg JA, et al. [Guidelines for the Evaluation and Management of Dyslipidemia in Human Immunodeficiency Virus \(HIV\)–Infected Adults Receiving Antiretroviral Therapy: Recommendations of the HIV Medicine Association of the Infectious Disease Society of America and the Adult AIDS Clinical Trials Group](#).* *Clin Infect Dis*. 2003;37:613–627.
2. European AIDS Clinical Society (EACS). [Guidelines. Version 6.0](#).* Accessed 3 July 2012.