

■ Items 20-24

For each numbered investigational drug class (20-24), select the one lettered proposed effect on lipoprotein metabolism (A, B, C, D, E) associated with it. Each lettered proposed effect on lipoprotein metabolism may be selected once, more than once, or not at all.

- (A) Increases upregulation of LDL receptors by decreasing hepatic cholesterol synthesis.
- (B) Increases HDL particle size and decreases catabolism of HDL.
- (C) Interrupts the hepatic assembly of apoB-containing lipoproteins thereby decreasing VLDL production.
- (D) Decreases the storage of cholesteryl ester in macrophages.
- (E) Decreases triglyceride and raises HDL levels by enhancing lipoprotein lipase activity and increases the incorporation of free fatty acids into fat cells.

20. Cholesteryl Ester Transfer Protein (CETP) Inhibitors.

21. Squalene Synthetase Inhibitors.

22. Dual PPAR (peroxisome proliferator-activated receptor) Alpha/Gamma Agonists.

23. Microsomal Triglyceride Transfer Protein (MTP) Inhibitors.

24. Acyl-CoA: cholesterol acyltransferase (ACAT) Inhibitors.

■ Items 25-29 and 30-34

You are a member of a formulary committee for your State Medicaid program and are asked to summarize the pharmacokinetic and drug interaction differences between the various statins.

For each numbered statin (25-29), select the one lettered pharmacokinetic profile (A, B, C, D, E) associated with it. Each lettered pharmacokinetic profile may be selected once, more than once, or not at all.

- (A) Half-life 3-4 hours, metabolized by the cytochrome P4503A4 pathway.
- (B) Half-life 14-15 hours, metabolized by the cytochrome P4503A4 pathway.
- (C) Half-life 3-4 hours, no significant cytochrome P450 pathway metabolism.
- (D) Half-life 20 hours, no significant cytochrome P450 pathway metabolism.
- (E) Half-life 2-3 hours, metabolized by the cytochrome P4502C9 pathway.

25. Pravastatin.

26. Simvastatin.

27. Atorvastatin.

28. Fluvastatin.

29. Rosuvastatin.

For each numbered statin (30-34), select the one lettered drug interaction profile (A, B, C, D, E) MOST closely associated with the statin's pharmacokinetic changes. Each lettered drug interaction profile may be selected once, more than once, or not at all.

	<b>Erythromycin</b>	<b>Ketoconazole</b>	<b>Fluconazole</b>	<b>Gemfibrozil</b>	<b>Fenofibrate</b>	<b>Cyclosporine</b>
<b>(A)</b>	Increased AUC	Increased AUC	No effect	Increased AUC	No effect	Increased AUC
<b>(B)</b>	Increased AUC	Increased AUC	No effect	Data not available	Data not available	Increased AUC
<b>(C)</b>	No effect	No effect	Increased AUC	No effect	Data not available	Increased AUC
<b>(D)</b>	No effect	No effect	No effect	Increased AUC	No effect	Increased AUC
<b>(E)</b>	No effect	No effect	No effect	No effect	No effect	No effect

AUC = Area Under the Curve

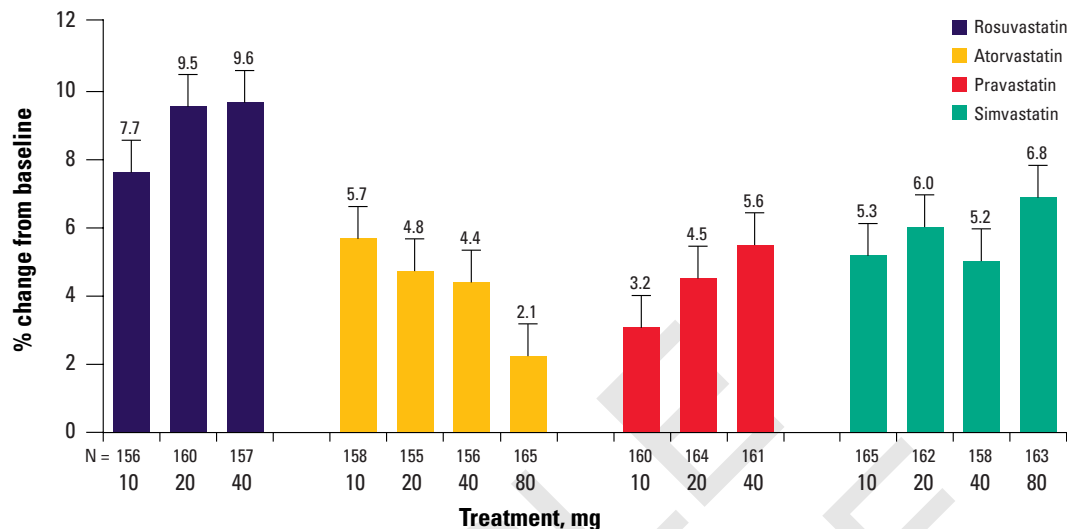
30. Pravastatin.

31. Simvastatin.

32. Atorvastatin.

33. Fluvastatin.

34. Rosuvastatin.



**Figure 13. HDL-C: % Change From Baseline Rosuvastatin 10 to 40 mg vs Comparators Trial 65 – STELLAR (Wk 6)**

$P < .002$  RSV 10 mg vs PRA 10 mg.

$P < .002$  RSV 20 mg vs ATV 20 mg, 40 mg, 80 mg; PRA 20 mg, 40 mg; SIM 40 mg.

$P < .002$  RSV 40 mg vs ATV 40 mg, 80 mg; PRA 40 mg; SIM 40 mg.

Data presented as LS means  $\pm$  SE.

Colesevelam provides an additive 15-18% reduction in LDL in combination with a statin without significantly adversely affecting triglyceride levels. HDL levels may also modestly increase. Therefore, the lipid profile portrayed in option (D) is most consistent with the addition of colesevelam, 3725 mg qd. Fenofibrate, 160 mg provides a significant reduction in triglycerides of 25-30% and a 5-15% increase in HDL. LDL levels may increase slightly in patients with combined hyperlipidemia but often are unchanged or slightly decreased in patients with elevated LDL levels. The lipid profile portrayed in option (E) is most consistent with the addition of fenofibrate, 160 mg qd.

### Bibliography

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