13. What percent reduction in LDL-C level does this patient require in order to achieve his NCEP ATP III goal?

(A) 24%.

(B) 35%.

(C) 42%.

(D) 55%.

(E) 70%.

14. Which **one** of the following patients has a 10-year risk of developing a coronary event equivalent to that for the 53-year-old male smoker in this case study?

(A) A 50-year-old non-smoking male with type 2 diabetes who had a myocardial infarction 6 months ago, has a normal blood pressure, a total cholesterol of 150 mg/dL, and an HDL of 45 mg/dL.

(B) A 63-year-old female smoker with a lipid profile and blood pressure identical to those in the 53-year-old male smoker.

(C) A 78-year-old male non-smoker with a blood pressure of 120/80 mmHg and a lipid profile identical to that in the 53-year-old male smoker.

(D) A 50-year-old non-smoking female with normal blood pressure, but with a total cholesterol of 300 mg/dL, HDL of 50 mg/dL, blood glucose of 90 mg/dL.

(E) A 70-year-old female smoker with a blood pressure of 120/80 mmHg and a total cholesterol of 150 mg/dL, HDL of 50 mg/dL, and blood glucose of 100 mg/dL.

The 53-year-old patient was placed on atorvastatin, 10 mg and a follow-up lipid profile was as follows:

Total cholesterol:	172 mg/dL.
Triglycerides:	165 mg/dL.
HDL:	33 mg/dL.
LDL:	106 mg/dL.
Glucose:	107 mg/dL.

Subsequently, his therapy was changed. For **each** proposed numbered change in this patient's therapy (15-19), select the **one** MOST likely lettered lipid profile (A, B, C, D, E) associated with it. Each lettered lipid profile may be selected **only once**.

(A)

Cholesterol:	160 mg/dL.
Triglycerides:	160 mg/dL.
HDL:	33 mg/dL.
LDL:	99 mg/dL.
Glucose:	107 mg/dL.

(B)

Cholesterol:	161 mg/dL.
Triglycerides:	128 mg/dL.
HDL:	38 mg/dL.
LDL:	97 mg/dL.
Glucose:	115 mg/dL.

(C)

Cholesterol:	162 mg/dL.
Triglycerides:	160 mg/dL.
HDL:	35 mg/dL.
LDL:	95 mg/dL.
Glucose:	107 mg/dL.

(D)

Cholesterol:	155 mg/dL.
Triglycerides:	170 mg/dL.
HDL:	34 mg/dL.
LDL:	87 mg/dL.
Glucose:	107 mg/dL.

(E)

Cholesterol:	167 mg/dL.
Triglycerides:	120 mg/dL.
HDL:	35 mg/dL.
LDL:	106 mg/dL.
Glucose:	107 mg/dL.

15. Add extended-release niacin, 1000 mg qPM.

16. Add colesevelam, 3725 mg qd.

17. Add fenofibrate, 160 mg qd.

18. Change atorvastatin, 10 mg to rosuvastatin, 10 mg qd.

19. Titrate atorvastatin from 10 mg to 20 mg qd.

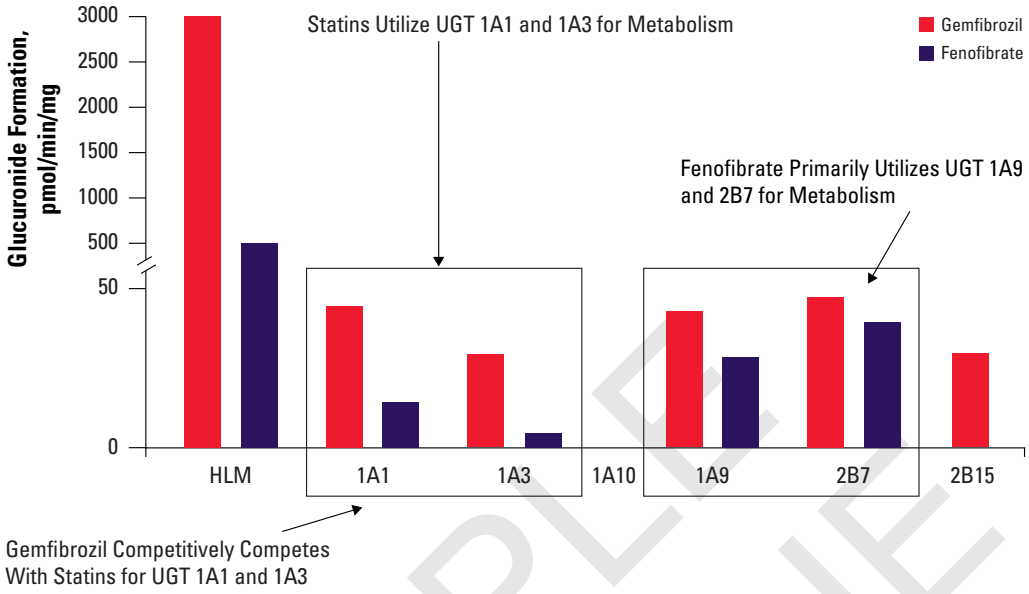

Figure 17. Glucuronidation of Fibrates Gemfibrozil and Fenofibrate

Prueksaritanont T, et al.: *Drug Metab Dispos.* 2002;30:1280-1287.

Lovastatin, simvastatin and atorvastatin are metabolized by the cytochrome P4503A4 pathway and, therefore, levels of these drugs would be significantly affected by the CYP3A4 pathway inhibitors, erythromycin and ketonazole but not by the CYP2C9 pathway inhibitor fluconazole. In addition, as with all statins, simvastatin and atorvastatin are affected by cyclosporine.

The pharmacokinetic profiles of simvastatin and atorvastatin differ in the data regarding interactions with fibrates. Simvastatin is affected by gemfibrozil but not by fenofibrate. The data regarding atorvastatin interactions with gemfibrozil or fenofibrate is not available. Fluvastatin is the only statin that has been shown to not be significantly affected by gemfibrozil, but since the drug is metabolized by the CYP2C9 pathway, an inhibitor of this pathway, fluconazole, would be expected to elevate the AUC. The hydrophilic statins, pravastatin and rosuvastatin, are not affected by the CYP3A4 or CYPC29 pathway inhibitors, but are both affected by gemfibrozil and cyclosporine. Table 3 summarizes the drug interaction profile of the various statins.