obtain ICERs of HMG-CoA Reductase Inhibitors compared to aspirin.

RESULTS: The base-case results of the model show that the highest ICER in males is $2,932/QALY, and for females is $5,441/QALY. One-way sensitivity analyses show the variable with the highest variance in cost/QALY results in an ICER of $12,252/QALY. Secondary analysis shows the ICERS for males and females using HMG-CoA Reductase Inhibitors compared to aspirin are under $26,000/QALY for all ages.

CONCLUSION: This research study shows that the use of prophylaxis aspirin (75 mg/day) is cost-effective for the primary prevention of CVD in males and females aged 40–80. The use of HMG-CoA Reductase Inhibitors compared to aspirin provides higher effectiveness but at higher costs, resulting in ICERS up to $26,000/QALY.

A COST-EFFECTIVENESS ANALYSIS OF STATIN THERAPY IN A MANAGED CARE POPULATION
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OBJECTIVES: To estimate the incremental cost-effectiveness ratios (ICER) of statin monotherapy for attaining NCEP ATP II LDL-cholesterol (LDL-C) goal levels from a managed care organization (MCO) perspective.

METHODS: Total and dyslipidemia attributable costs of care (medication, physician office visits, laboratory) and consequences (resource use associated with atherosclerotic vascular events) were captured between 1/98 and 12/00 for patients newly started on statin therapy from a southeast US MCO. Costs (year 2000 $US) were converted using an inflation adjusted discount rate. Follow-up costs and probabilities of attaining LDL-C goal were estimated using multivariable OLS and logistic regression, respectively. Costs were log transformed prior to regression. Covariates were selected based on fit and clinical relevance, and included baseline total costs, age, gender, cogent clinical subgroups, and duration of follow-up. Mean differences in all pair-wise ICER were evaluated by applying non-parametric bootstrap techniques.

RESULTS: A total of 1,651 patients were captured and followed for a median duration of 19.4 months. Fluvastatin, pravastatin, atorvastatin, and simvastatin adjusted mean attributable costs and respective adjusted probabilities of obtaining goal were $1,354 (0.51), $2,320 (0.57), $2,451 (0.75), $2,964 (0.7), respectively. In the base case analysis, the mean [95%CI] attributable cost per LDL-C goal obtained vs. no therapy was: fluvastatin: $2,654 [$828–$4,878], atorvastatin: $3,268 [$1,009–$5,994], pravastatin: $4,070 [$1,269–$7,800], simvastatin: $4,234 [$1,327–$7,818]. The ICER to obtain one additional goal for atorvastatin, simvastatin, and pravastatin as compared to fluvastatin was $4,570 [$1,349–$9,664], $8,473 [$2,537–$19,558], $16,100 [$3,537–$NW], respectively. The ICER of atorvastatin dominated simvastatin (simvastatin higher mean [95%CI] cost and lower mean [95%CI] probability of obtaining goal). The results were not sensitive to changes in inflation rate or model selection.

CONCLUSIONS: This analysis suggests atorvastatin has a reasonable incremental cost per goal attained as compared to fluvastatin, pravastatin, and simvastatin in this population. Atorvastatin, compared to simvastatin, provided more effect for less cost.

COST-EFFECTIVENESS OF THE FIBRATES IN THE REDUCTION OF CORONARY HEART DISEASE EVENTS
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While fibrates are clinically recommended for patients with low HDL cholesterol, the pharmacoeconomic literature on U.S. FDA-approved fibrates (gemfibrozil and fenofibrate) is limited.

OBJECTIVES: To determine the cost-effectiveness of the fibrates in the primary prevention of CHD events in patients with low-levels of HDL (<35 mg/dl) from the societal perspective.

METHODS: An economic model was created utilizing a hypothetical cohort of United States males and females aged 45–79, with low levels of HDL, and no history of CHD. The source of data for predicted probabilities, the expected mortality rates, CHD event related treatment costs (in year 2000 dollars) is from the literature including the VA-HIT study; and the model utilized a discount rate of 3% and a lifetime time horizon. A sensitivity analysis was performed to determine the robustness of the model.

RESULTS: In the base case scenario, males are more cost-effective than females for both gemfibrozil and fenofibrate. For males, as age increases the ratios of cost-effectiveness decreases with age in addition to a slight increase at age 75 ($8,119–$4,641 for gemfibrozil; $31,286–$4,930 for fenofibrate). For females, the cost per life year gained increases with age with a slight increase at age 70 ($43,750–$8,991 for fenofibrate; $56,999–$30,789 for fenofibrate). In contrast, the cost per QALY ratios of cost-effectiveness increases with age with higher ratios at age 75 than at age 45 ($15,371–$20,489 for gemfibrozil; $21,619–$28,425 for fenofibrate). The results of the sensitivity analysis were consistent with the results of the base case scenario.

CONCLUSION: This economic model demonstrates that treating men with fibrates are more cost-effective than treating women at any age, and all cost-effectiveness ratios are less than a $50,000 threshold, except for 45 year-old women treated with fenofibrate.