ENOXAPARIN — A PHARMACOECONOMIC REVIEW OF ITS USE IN THROMBOEMBOLIC PROPHYLAXIS
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OBJECTIVE: Enoxaparin is a low-molecular-weight heparin widely used in the prophylaxis and treatment of venous thromboembolism. This study critically reviews recent literature to determine the clinical conditions for which enoxaparin can be considered as a gold standard treatment from both outcome and cost standpoints.

METHODS: A Medline and current contents search for published pharmacoeconomic evaluations, from 1980 to present, was conducted. Abstracts were excluded. A large range of cost-effectiveness and cost-utility analyses were available, mainly comparing enoxaparin with unfractionated heparin (UFH) and warfarin, and taking into account the different dosage regimens (30 mg, 40 mg once or twice daily) currently recommended for durations ranging from 5 days to 3 months. Efficiency was often investigated on the basis of decision trees setting out clinical alternatives and probable events: deep vein thrombosis (DVT); pulmonary embolism (PE); major bleed; death. Clinical outcome data were extracted from selected randomized, controlled trials or meta-analyses. In most cases, direct costs were only estimated.

RESULTS: Enoxaparin was shown to be more efficient than UFH in the treatment of acute DVT in the hospital setting than warfarin for the short-term prophylaxis of thromboembolism in inpatients undergoing knee or hip replacement. Long-term enoxaparin therapy for outpatients was associated with better cost-effectiveness or cost-utility ratios than enoxaparin treatment in elective hip surgery. Moreover, enoxaparin emerged as a dominant strategy versus UFH therapy, yielding overall cost savings in outpatient extended prophylaxis for hip surgery; in general surgery and in outpatient treatment of acute proximal DVT.

CONCLUSION: There is now strong clinical and economic evidence that enoxaparin may be more effective than warfarin and UFH, perhaps safer than UFH, while reducing short-term costs of thromboembolic events but also the substantial long-term costs of post-thrombotic complications.

IMPACT OF NON-COMPLIANCE ON THE COST-EFFECTIVENESS OF STATIN THERAPY
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OBJECTIVES: Non-compliance is a major problem in clinical practice and often leads to sub-optimal therapeutic response. This is particularly evident when effective treatment is available for a chronic, asymptomatic disease. In the present study, an evaluation of the impact of non-compliance on the clinical efficacy of antihyperlipidaemic drugs is made.

METHODS: An electronic search of the literature was conducted in order to identify trials and other reports that presented compliance data and clinical endpoints (reduction in LDL cholesterol). Assuming a class effect for the actions of HMG-CoA reductase inhibitors (statins), estimates of cost-effectiveness (cost per percentage reduction in LDL cholesterol) were made for individual drugs at the different compliance rates.

ASSESSING THE IMPACT OF HYPERLIPIDEMIA TREATMENT WITH PRAVASTATIN AND SIMVASTATIN IN A LARGE COUNTY INSTITUTION
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OBJECTIVE: The purpose of this study is to evaluate if a sample county-hospital population has achieved target cholesterol values, per National Cholesterol Education Program (NCEP) guidelines while on pravastatin or simvastatin therapy.

METHODS: A chart review of patients from eleven health-care facilities within the county was obtained for evaluation of current total cholesterol (TC), low density lipoprotein (LDL), high density lipoprotein (HDL) and triglyceride levels. The inclusion criteria consisted of patients who had undergone HMG-CoA reductase inhibitor therapy for at least six months. They were retrospectively evaluated to determine impact on lipid profile. Data collection included demographics such as, gender, race, and risk factors, in addition to the standard lipid profile.

RESULTS: Results are being reported for the initial 120 patients evaluated. On the average, post-treatment TC and LDL levels are 219 mg/dl and 136 mg/dl, respectively, in the sample population. Results indicate that only about 36% of the patients have reached target TC and LDL levels per NCEP guidelines while 64% of the patients were above target levels. Of the two agents evaluated, 75% of the patients on pravastatin reached treatment goals while only 26% of the patients on simvastatin reached treatment goals. African-Americans, after treatment, had the highest TC and LDL values. Overall, the patients had an average of three risk factors.

CONCLUSION: The preliminary study results indicate that a high percentage of county hospital patients have TC values > 200 mg/dl and LDL values >130 mg/dl, even after therapy with an HMG-CoA reductase inhibitor. Patients with more than two risk factors and a LDL level greater than 130 mg/dl must be targeted for more aggressive pharmacotherapeutic management and be encouraged to make necessary lifestyle changes. Additional studies are needed to determine the effect of different pharmacological agents and ethnic influences on outcome.