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PCV19

TURKISH PHYSICIAN PRESCRIPTION PATTERNS FOR HYPERTENSION MANAGEMENT

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OBJECTIVE: In our country rational drug prescription and use has not been established yet. Moreover, because there is a lack of pharmacoeconomic research, it is hard to point the real state of art. Use of information technologies in the control of rational prescription habits is nil. We analyzed hypertensive patient prescriptions to evaluate existing practice habits. From the prescription habit profiles thus obtained and taking into consideration the recent reports of JNC-VI and WHO recommendations that are currently used in our country in medical education, we aimed to propose an urgent need for guidelines and hospital formularies. **METHODS:** 1864 prescriptions were obtained from the social security systems and the relevant data of 253 patients diagnosed as hypertension was entered to SPSS. **RESULTS:** The analysis of the prescriptions revealed inappropriate initial drug therapy in hypertension (43%). In these cases initial drug therapy for isolated hypertension began with ACE inhibitors. Average ACE inhibitor costs $12.32 and taking Turkey's economic situation, they are not cost-effective. Most striking characteristic of analyzed prescriptions was polypharmacy (5 or 4 drugs = 61%). Furthermore we observed unnecessary drug class switch (less then 10 days) in 36 prescriptions. **CONCLUSIONS:** The results of our analysis has led us to the following conclusions. Drug choice for initial drug therapy and drug class switch is not in accordance with international guidelines. Unethical promotion (a widespread problem in Turkey) probably being the major cause. Polypharmacy, a problem we have been trying to solve since the last 15 years, still exists. By preparation and effective use of therapeutic guidelines and hospital formularies both polypharmacy and irrational drug prescription can be solved.

PCV20

ANNUAL COST OF TREATING HYPERLIPIDEMIA IN A MANAGED CARE POPULATION

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OBJECTIVE: To characterize the treatment, and associated costs, of hyperlipidemia in a managed care population. **METHODS:** All patients within PharMetric's Integrated Outcomes Database possessing a diagnosis of hyperlipidemia (ICD-9-CM = 272.0, 272.1, 272.2, 272.4) during 1997 were eligible for study inclusion. Patients with less than 12 months of enrollment prior to or following the initial diagnosis, or a prescription claim for a lipid-lowering agent or medical claim for a cardio/cerebrovascular event (CVE) prior to diagnosis, were excluded from the analysis. Patient demographics, hyperlipidemia-specific charges, prescription claims for lipid lowering agents, and comorbid conditions were captured for each patient during the study period. **RESULTS:** 16,187 patients met the inclusion criteria. The mean age was 51.7 years (SD = 11.5), and 59.1% were female. The most common comorbidities were hypertension (35.3%) and diabetes (12.5%). Only 21% of patients had a prescription claim for a lipid-lowering agent within 12 months of diagnosis. The most common agents were the HMG-COA reductase inhibitors, prescribed to 3030 patients (18.7%). 239 patients (1.5%) had a CVE within 12 months of diagnosis—the most common of which was atherosclerosis (28.9%) followed by acute myocardial infarction (4.2%). The incidence of CVEs was positively correlated with age, ranging from 0.8% in patients <55 to 6.52% in patients 80+ years of age. The mean hyperlipidemia-specific charges per patient were $3,047 (SD = 7168) for the year prior and $5,260 (SD = 13470) for the year following the index diagnosis. For patients having a CVE, the mean total charges were $44,213 (SD = 39787). **CONCLUSION:** Hyperlipidemia represents a substantial cost burden to health systems. Pharmaceutical treatment, despite evidence of its effectiveness, was relatively uncommon in this population.

PCV21

VARIATION IN MEDICAL RESOURCE UTILIZATION IN THE MANAGEMENT OF PULMONARY EMBOLISM

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OBJECTIVES: Databases provide aggregated and confounded data regarding management and cost of pulmonary embolism (PE). The objective of this study was to investigate, via patient chart analysis, the average and the variation in medical resource use strictly related to PE patients, and to find explanatory factors for the possible variation. **METHODS:** Patients with confirmed PE (n = 54) were randomly selected from 5 Belgian centres. The centres were representative for size and region. The charts were analyzed in detail, based on a standardized case record form. Only medical resource use related to the treatment of presumed and confirmed PE was included in the analysis, with a time horizon from the day of suspicion up to discharge. **RESULTS:** On average, the management of PE is rather consistent across centres. The total average cost of PE was equal to 3,394 Euro (95% CI = 2,762–4,027 Euro). Still, large inter-individual differences are found in the intensity of diagnosis and follow-up. More in particular, a large variation in hospital duration is found, (average = 14.6 days, Std. Dev. = 9.3), but this effect was not explained by the type of centre nor the region. The only two factors that are significantly related with hospital duration in a multivariate re-

gression analysis are the number of days of heparin use and the intensity of diagnostic follow-up, as expressed by the number of VQ-scans. **CONCLUSIONS:** The management of PE, from suspicion until discharge, is rather consistent; however, large inter-individual variation in hospital stay is observed. Interestingly, the length of hospitalization is related to the duration of heparin use. This perhaps opens perspectives for anticoagulation that can be administered ambulatory. A patient chart review has the advantage over database research that only resource use strictly related to the investigated condition can be identified.

PCV22

COST-EFFECTIVENESS OF HMG-CoA REDUCTASE INHIBITORS AND FIBRATES THERAPY IN ELDERLY WOMEN WITH CORONARY ARTERY DISEASE

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OBJECTIVE: To determine pharmacoeconomically optimal hypolipidemic drug for preventive maintenance of CAD in women of elder age groups. **METHODS:** 110 women, average age 59 ± 3,4 yrs., with menopause duration more than 5 years, hypercholesterolemia types IIA and IIB, coronary heart disease, angina pectoris of II–III functional class without clinical signs of heart insufficiency were included into the study. They were divided into 5 groups by a method of envelopes: patients of I group received simvastatinin - 10–20 mg o.d., patients of II group - fluvastatin 40–80 mg o.d., patients of III group - pravastatin 20–40 mg o.d., IV group - fenofibrate 200 mg o.d., V group-ciprofibrate - 100 mg o.d. Statins were initially given in bioequivalent doses. The groups of therapy were completely comparable to age; duration of disease and character of accompanying therapy, and also by levels TC and LDL-C Therapy duration was 12 weeks. After 4 and 12 weeks the levels of TC, LDL-C, HDL-C, TG and also conventional biochemical criterion of safety of therapy were determined. The criterion of cost-effectiveness for each drug was defined under the following formula, permitting to determine the cost of 1% reduction of LDL-C by various hypolipidemic drugs: Ñ-E =Σ (DMC + FC)/% of LDL-C reduction, where DMC—the direct medical costs including cost of a medical reception and cost of an out-patient inspection according to the standards of the prices for medical services in adult outpatient departments of Moscow under the program of voluntary medical insurance in 1997–98; FC-cost of a monthly course of treatment by different drugs in Moscow chemist's web in 1997–98. **CONCLUSION:** The comparison of hypolipidemic drugs by a criterion "cost-effectiveness", using as a criterion of therapy efficiency percentage of LDL-C reduction, arranged the drugs as follows: ciprofibrate (100 mg) - fluvastatin (40 mg) - simvastatin (10 mg) - fenofibrate (200mg) - fluvastatin (80mg) - simvastatin (20mg) - pravastatin (20 mg) - pravastatin (40 mg).

PCV23

VARIATION IN COSTS OF TREATING HYPERCHOLESTEROLEMIC PATIENTS IN FRANCE

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OBJECTIVE: To examine the variation in total costs of treating patients with hypercholesterolemia to achieve EAS LDL-C target concentration levels using statins. **METHODS:** A randomized, 54-week, controlled trial was conducted to compare resources used when treating patients to EAS LDL-C targets using atorvastatin, fluvastatin, pravastatin and simvastatin. Variation in total costs among the arms of the study could be attributed to the time at which patients achieved LDL-C targets and the services and medications required to reach LDL-C target. Costs include costs of study drug, add-on therapy, physician office visits, lab tests and attributable adverse events. **RESULTS:** There was substantial variation in total costs and in the components of total costs among study arms. Patients treated with atorvastatin achieved LDL-C target significantly faster ($P < 0.05$) at lower doses of study drug and required significantly fewer clinic visits than patients treated with comparator statins. Consequently, mean total cost of care to reach LDL-C targets were significantly lower than costs for patients treated with comparators ($P < 0.05$). **CONCLUSION:** Costs for treating patients to LDL-C targets with HMG-CoA reductase inhibitors varied significantly among drugs. Total costs of therapy were lowest with atorvastatin, when compared to other reductase inhibitors examined in this study.

PCV24

THE COST OF REACHING LDL-C TARGETS IN SPAIN: A COMPARISON AMONG STATINS

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OBJECTIVE: To examine the variation in total costs of treating patients according to EAS LDL-C target concentration levels attributable to use of alternative HMG-CoA reductase inhibitors (statins). **METHODS:** A randomized, 54-week, controlled trial was conducted to compare resources used when treating patients to EAS LDL-C targets using atorvastatin, fluvastatin, pravastatin and simvastatin. The trial enrolled 336 patients. Patients were dispensed study drugs according to the protocol; starting at the lowest dose and titrating up at regular intervals if LDL-C targets were not met. Per the protocol, the amount of resources consumed varied based upon the time at which patients achieved LDL-C targets. In this treat-to-target study, it was possible to achieve target in