A METHODOLOGICAL APPROACH TO ASSESS COST DATA IN THE CONTEXT OF A DECISION ANALYTIC MODEL TO EVALUATE THE COST-EFFECTIVENESS OF THE TREATMENT OF THE METABOLIC SYNDROME
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OBJECTIVES: The metabolic syndrome is an accumulation of risk factors and shows a high prevalence in the German population. Treatment is limited to the treatment of single risk factors as dyslipidemia or high blood pressure. A decision analytic model will be developed to assess the cost-effectiveness of a new pharmacological substance for the treatment of the metabolic syndrome. In this context a methodological approach was developed to evaluate cost data that enables decision analyst to use cost data for various treatment options. METHODS: Direct and indirect costs were considered for different treatment options and for costs of long-term complications of the metabolic syndrome. Field and desk research was done to obtain data concerning resource utilisation and was reviewed by clinical experts. Prices have been taken of official catalogues. Resource utilisation and prices have been related in a cost database that enables to give cost data for different treatment options and long-term complications of the metabolic syndrome. RESULTS: The German Metabolic Syndrome Cost Database includes information of resource utilisation prices and costs. The database is constructed in a way that it supports analysis from different perspectives. CONCLUSIONS: A flexible database was developed that enables the adaptation of cost data for future projects due to new developments in treatment of the metabolic syndrome.

DEVELOPMENT AND VALIDATION OF A CLAIMS-BASED RISK ASSESSMENT MODEL TO PREDICT PHARMACY EXPENDITURES IN A U.S. MEDICAID POPULATION
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OBJECTIVES: To empirically develop and validate the Medicaid RxCost Model, a prospective risk assessment model, that uses claims-based diagnostic information to predict future pharmacy expenditures. The Medicaid Mixed RxCost (MRxCost) Model was developed to explore the gain in predictive power associated with adding drug information. METHODS: A retrospective longitudinal cohort study using a California Medicaid sample from 1998 through 2000 was undertaken. Persons who were continuously enrolled for at least 13 months, who were 18 to 64 years of age, not eligible for Medicare and were not admitted for a hospital or nursing home stay >30 days were selected. A training sample consisting of 138,454 persons was utilized to develop the models using OLS regression. A random holdout sample of 92,621 was utilized to validate the models and to compare the performance of each model. The discrimination of the models was also compared to a demographic model and the Chronic Illness and Disability Payment System (CDPS) model. Prediction ratios and measures of discrimination were estimated for hypothetical physician groups with varying patient sizes. RESULTS: Subjects were on average 35 years old, 72% were female, and annualized prescription expenditures were $497. Out of a total of 101 variables explored for the Rx-Cost model, 56 were retained after variable selection procedures and clinical review. The R-square value for the Medicaid RxCost Model, the Medicaid MRxCost Model and the CDPS model using the validation sample was 0.24, 0.30 and 0.04 respectively. The prediction ratio = 0.90 and r-square = 0.50 were highest for large hypothetical physician groups (500 patients), but acceptable measures were observed for groups as low as 10 members. CONCLUSIONS: The Medicaid RxCost Model was successfully developed and it substantially outperformed the CDPS model in terms of R-square. The Medicaid MRxCost Model proved that supplementing drug information can improve discriminatory power.

PHARMACOECONOMIC ASPECTS OF THE ADMINISTRATIVE REFORMS IN PHARMACEUTICAL SECTORS OF REPUBLIC HEALTH DEPARTMENTS IN MONTENEGRO
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OBJECTIVES: In 2002 in Montenegro there was no efficient system which should follow up the prescribing practice in outpatient clinics. The total expenses for drugs were so high that they threatened to diminish the whole system of drug supply. METHODS: Therefore in 2003 at the whole Montenegro Republic a system to follow up the drug prescribing in outpatient practice was implemented. System consisted from the central unit in Republic health department, and units in the all pharmacies which give drugs on the prescriptions covered financially by Republic health department. System started on 01.01.2004. System contains bases with all drugs on market in Montenegro, all doctors, pharmacists, drug users and enables to follow the drugs way from each doctor through pharmacy to the patient. RESULTS: At the same time Republic health department introduced the new list of drugs refunded by Republic health department. The list of drugs refunded by Republic health department, so called Positive list, covered all important drugs, and was prepared in accordance to new pharmaco-therapeutic guidelines. ATC/DDD methodology of drugs was used. Analysis performed one year after implementation showed that the use of drugs significantly (1368%) decreased when compared with 2002 year. Expenses were 1.5 mil E lower that on 2002/2003. From the all drugs, the most often issued drugs were for arterial hypertension and for tonsillopharingitis, more than 25% of all prescriptions. The structure of drugs prescribed was improved when compared with pre implementation period. CONCLUSIONS: Permanent monitoring and periodic analyses of informations obtained from information system in the future will additionally improve rationalization of the drug prescribing. Monitoring and analyses will show if some other administrative measurements are needed to keep this positive trend on.

ECONOMIC IMPACT OF HOSPITAL MALNUTRITION
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OBJECTIVE: Malnutrition during hospital stay has been consistently reported since the 1970s. In addition to the clinical implications malnutrition may have, it also leads to increased length of stay and drug usage due to complications. We report from a large observational database of 26 Belgian hospitals to document the potential economic impact of hospital malnutrition. METHODS: As a legal requirement, Belgian hospitals must register case-mix data for each inpatient stay in a minimum basic data set (MBDS). We extracted exhaustive and anonymous stay data from 26 hospitals (2nd semester, 2003) and identified malnourished patients as patients for whom ICD9-CM codes for “underweight” (783.22) or “severe weight loss” (783.21) were recorded. A matched analysis on APR-DRG, age and gender was then performed to compare inpatient pharmacuetical costs, pro-