

0.001). For every 6 patients switching in cohort 1, 10 patients switched in cohort 2 (hazard ratio: 0.62, 95% CI: 0.57–0.69). The introduction of generic omeprazole resulted in decreasing expenditures for omeprazole (–€140 million; –56%) and for all PPIs (–€52 million; –16%) between 2001–2004. However, some savings have been missed due to increased switching from the generic product. Further results will be presented on statins of which analyses are currently conducted. **CONCLUSIONS:** After patent expiry, more patients switch from omeprazole to another PPI. It is however debatable whether a 5% increase in ‘switchers’ is relevant in the light of enormous decreased expenditures due to generic substitution.

#### PHP21

##### **ANALYSIS OF COST OF ILLNESS IN THE NETHERLANDS IN 2003: INTEGRATING NATIONAL AND INTERNATIONAL PERSPECTIVES ON HEALTH CARE COSTS**

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**OBJECTIVES:** To determine the demands on health care resources caused by disease, age and gender and to demonstrate the importance of the perspective on health expenditure (national versus international). **METHODS:** A generic top-down cost-of-illness analysis was performed for The Netherlands. Expenditure per provider in 2003 was known for three perspectives on health care costs: the OECD's System of Health Accounts (SHA) and two national perspectives. Data on health care use were collected from 70 registries of which the most important had national coverage. These were mapped on expenditure to estimate cost of illness and enabled analysis in six dimensions: provider, health care function, source of funding, age, gender and disease. Outcome measures were total costs and costs per capita. **RESULTS:** Mental diseases represent the most expensive main diagnostic group (22% of total costs). Heart diseases come second (9.2%). Neoplasms come on a 7th place (4.1%). The three perspectives showed minor differences in ranking of disease groups. Total costs differed widely between perspectives: €43.7 to €57.5 billion (9–12% GDP), the higher estimate based on the perspective of the Dutch National Health Accounts, the lower on the perspective of the Dutch ministry of Health. The international SHA-perspective came close in total costs to the ministry of Health estimate (€45.1 billion), but had a radical different composition. Cost increase by age, sharply from 65+ onwards until €50,000 per citizen for the oldest old. In the SHA-approach the increase is less steep because of the exclusion of specific health provisions for Dutch elderly. **CONCLUSIONS:** The perspective on health expenditure has an important influence on coi-estimates, especially for per capita costs and to a lesser extent for the relative expenditure on particular diseases. Insight in the differences between perspectives enables better national and international comparisons between coi-studies.

#### PHP22

##### **NUTRICORE®: COST-EFFECTIVENESS-ANALYSIS (CE) OF AN EVIDENCE BASED CLINICAL NUTRITION CONCEPT IN CORRELATION WITH RELEVANT CLINICAL OUTCOMES IN HOSPITALIZED MALNOURISHED PATIENTS BY RISK-ADJUSTMENT OF DIAGNOSIS BASED SEVERITY OF DISEASE**

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Current clinical data show that every third hospitalized patient in Germany is malnourished. This indicates a need for mandatory nutrition status screening and evidence based clinical nutri-

tion. The cost-effectiveness-estimate of this concept has not yet been evaluated by a diagnosis based severity-of-disease risk-adjustment. NUTRICORE is the first study worldwide, using the predictive scale of Disease Staging to get valid data on risk-adjusted clinical and economic outcomes in the field of clinical nutrition research on large patient populations (>10,000). **OBJECTIVES:** To show a positive correlation of an evidence based clinical nutrition concept on clinical and economic outcomes in malnourished hospitalized patients by risk-adjustment on severity of disease and corresponding cost-effectiveness-analysis. **METHODS:** NUTRICORE SP1 is a prospective controlled interventional multicenter based clinical trial with more than 10,000 patients from German Hospitals. The nutrition status of each patient is screened and combined with clinical data, utilization data and direct costs on the basis of clinical homogenous patient clusters. The risk adjustment scales can be run by routine data sets from German inpatient G-DRG system 2006. In the control period starting in June 2006 the effects of usual nutrition care are documented. Starting the intervention period in October 2006 an implementation of an interdisciplinary evidence-based guideline for screening and clinical nutrition will be introduced in each participating hospital. **RESULTS:** NUTRICORE SP1 has been piloted in two 600-bed-hospitals in Germany during 2005, showing a significant reduction of costs for clinical nutrition by €152,544.00 per year for a risk-adjusted patient population of €38,004 cases in total. **CONCLUSIONS:** The study NUTRICORE SP1 is intended to show significant clinical improvements and significant cost-effectiveness by the implementation of an evidence based nutrition concept within clinical homogenous patient groups leading to reduction of Length of Stay (LOS), Inpatient Mortality, Complications-of-Care, hospital readmission.

#### PHP23

##### **TIME SERIES ANALYSIS OF PHARMACEUTICAL PUBLIC EXPENDITURE: EVALUATION OF SUPPLY MEASURES**

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**OBJECTIVES:** To analyze the evolution of the pharmaceutical public expenditure and to evaluate the impact of supply measures of restraint over its growth. **METHODS:** Time series analysis through linear autoregressive multivariate models (January 1999–June 2005). Source: monthly pharmaceutical invoices. Dependent variables: total public expenditure (E), number of prescriptions adjusted by days (P/d), and average public expenditure per prescription (E/P). Independent variables analyzed: trend, seasonal variation, cycles, number of days and lags when necessary. Impacts analyzed: introduction of maximum margins for wholesalers and chemists' and discounts over chemists' turnovers (D), and introduction of two reference pricing groups (RPG1 & RPG2 respectively). Lags are also introduced when residual autocorrelation occurs. Models are validated through normal contrast and no-correlation of residual. **RESULTS:** Adjusted R2 are 0.818, 0.684 and 0.814 in E, P/d and E/P when trend is considered as unique variable. There are no seasonal variation at any time series ( $p > 0.1$ ) when this variable is related to four seasons as a categorical variable. However, August has been entered in E and P/d models as a dichotomic variable ( $p < 0.0001$  &  $p < 0.01$ ). Number of days also entered in E model ( $p < 0.0001$ ). Annual cycle is observed in P/d and E/P model ( $p < 0.05$ ) and half-yearly and quadrimestral cycles also entered in P/d model ( $p < 0.05$ ). Two supply measures present impacts at the short term. D has entered in the three models: E ( $p < 0.001$ ; Beta: –8,733,966), P/d (Beta: –13,100) and E/P (Beta: –0.18) ( $p < 0.05$  both). RPG2 has been also considered in E (Beta: