

therewith is price elastic. We estimate that approximately 40% of the increase in prescription volume results from REGO. Additionally to the increase in expenditures the sickness funds are facing a loss of income as less co-payment rates are paid. Prescriptions with prices lower than the co-payment rate are not paid by the insured anymore, but by the sickness funds. These low-price prescriptions cause a dramatic increase in volume, however, not a decisive increase in total expenditures. **CONCLUSIONS:** The time courses allow us to evaluate the effects of REGO. Furthermore they reveal information about the behaviour of the demand function, when the price drops to zero. The intention of REGO is to improve equity by protecting poorer and heavy users of prescription drugs from the financial burden of co-payments. Demand increases, when REGO reduces the price for prescription drugs to € 0. This could indicate an improvement in equity and access, however, effects on efficiency have to be shown in further analysis.

PHP4

USE OF FREE MEDICINE SAMPLES, DOCTOR PATIENT COMMUNICATION AND COST-RELATED NON-ADHERENCE AMONG OLDER ADULTS

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OBJECTIVES: The distribution of free samples to patients in the US, the retail value of which is US\$20 billion annually, is controversial. Proponents assert that free samples improve medication access for low-income patients while opponents argue free sample availability drives the choice of expensive, brand-name pharmaceuticals. It is critical to shed light on the benefits and costs of free samples for older adults, in particular, given their high drug cost burden. Our objective was to determine the proportion of older adults receiving free samples, and to examine the association between free sample receipt and communication with physicians and cost-related non-adherence to medicines. **METHODS:** In 2006, we conducted a national telephone survey of persons age 65 and older in the U.S., over-sampling those with low-incomes. The survey included several questions related to prescription drug insurance coverage, medication use and doctor-patient communication. **RESULTS:** Half of older adults surveyed had received free samples from their doctors at least once in the past 12 months, with 21% receiving samples more than once. Two thirds of seniors who had talked to their doctor about the cost of medicines they are taking received free samples compared to 43% of those who did not have such discussions. Seniors who received free samples were less likely to agree there is nothing their doctor can do to help lower drug costs (40% vs. 47%) than those who did not receive samples. Free sample receipt was associated with a lower risk of cost-related non-adherence (failing to fill prescriptions, skipping or reducing doses due to cost) (31% vs. 26%). **CONCLUSIONS:** Receipt of free samples is common among older adults and appears to increase with discussions of drug costs between doctors and patients. Free sample receipt may help reduce cost-related non-adherence, however, further study is needed to shed light on these behaviors.

HEALTH CARE USE & POLICY STUDIES – Diagnosis Related Group

PHP5

RISK OF DEATH AND HOSPITAL LENGTH OF STAY ASSOCIATED WITH CLINICAL EVENTS POTENTIALLY CAUSED BY NEUROMUSCULAR BLOCKADE REVERSAL AGENTS

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OBJECTIVES: Our aim was to estimate the hospitalization length of stay (LOS) and risk of death within hospitalization, associated with the occurrence of post-operative residual curarization (PORC) and adverse events (AE) possibly or probably related to neuromuscular blockade reversal agents (NMBRA) use. **METHODS:** Data was obtained from hospitalizations occurring in Portuguese public hospitals in 2007. Surgical procedures from (ICD-9-CM CSP codes): central nervous (01–05), endocrine (06–07), respiratory (30–34), cardiovascular (35–39), hematologic and lymphatic (40–41) and digestive (42–54) systems were selected due to their high potential for NMBRA use. According to clinical expertise and ICD-9 diagnosis classification, AE and events PORC were grouped into the following outcomes: bronchospasm, dysphagia or dyspepsia, cardiac dysrhythmias, tachycardia, hypertension, hypotension, xerostomia, nausea, vomiting or abdominal pain, central nervous system complications and allergic, psychological, respiratory, sensation and visual disturbances. Data consisted of admission and discharge date, age, gender, primary and secondary diagnosis, primary and secondary surgical procedures. No data was available regarding the type of NMBRA used. Within hospital, risk of death was estimated with parametric survival (Weibull) regression models. LOS was estimated through negative binomial regression models. **RESULTS:** The analysis included 136,150 surgical procedures (55.0% female and mean(SD) age 54.2(18.9) years). Rates of AE and PORC were 25.5% and 3.0%, respectively. Crude death rate was 2.8%. The risk of death was 1.3 (95%CI: 1.2–1.4) times higher in patients with AE and 2.0 (95%CI: 1.9–2.2) times higher in patients with PORC, adjusted for other covariates. The mean LOS was 5.3 days (<30 days, n = 130,254). LOS was significantly increased both in patients with at least one AE (2.2 days, 95%CI: 2.1–2.4) or at least one PORC event (7.4 days, 95%CI: 6.7–8.2). **CONCLUSIONS:** Post-operative residual curarization and adverse

events possibly or probably related to neuromuscular blockade reversal agents use are associated with increased inpatient death and extended hospital length of stay.

PHP6

ACUTE CARE HOSPITAL BED OCCUPANCY RATE IN HUNGARY BETWEEN 2000 AND 2008

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OBJECTIVES: The occupancy rate is a calculation to show the actual utilization of the inpatient health facility for a period. It is expressed as a percent. Our aim was to define occupancy rates between 2000 and 2008 in the Middle-European country, Hungary. Health care of its 10 million inhabitants was “secured” by 59,584 beds until 31st March 2007 and by 43,943 beds afterwards. **METHODS:** To calculate the average occupancy rate for a typical one-year reporting period, two data items are needed. The “Inpatient Days of Care” and the “Bed Days Available”. Data were got from the National Health Insurance Fund Administration. To calculate occupancy rate the (Inpatient Days of Care / Bed Days Available) x 100 formula was used. **RESULTS:** The highest occupancy rate between 2000–2008 in Hungary was 76.3% in 2001. From that time the occupancy rate continuously decreased independently of the decrease of beds available. The figure reached 66.9% in 2007. In 2008 a slight increase could be seen (70.7%), which seemed not to be significant, but in comparison to the decrease of beds (26%) at spring of 2007. Examining the gathered monthly data, it was realized that in February bed occupancy was the highest, 77.2%. Examining occupancy rate for calendar days, it got the highest figure on Thursday, 77%. In order to define how many beds are really needed, it has to be examined occupancy rate on every single calendar day. Evaluating the data it was observed that there were days when occupancy rate was higher than 91% but regularly reached 80%. **CONCLUSIONS:** On the basis of the above mentioned it can be proved that planning bed number, in addition to yearly average, the daily occupancy rate has to be considered, as stress on health care is highly fluctuating due to unplanned, sudden cases.

PHP7

BED OCCUPANCY RATE OF HUNGARIAN INTENSIVE CARE UNITS

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OBJECTIVES: Cost calculations show the importance of the utilisation of the capacity. The aim of the study is to analyse the percentage of bed occupancy in the intensive care units in Hungary according to the Diagnosis related Groups (DRG) system. **METHODS:** Data were derived from the National Health Insurance Fund Administration (NHI). The bed occupancy rate of the first eleven months of the year 2008 were analysed and compared to the mean of the Hungarian rate and to the means of two other recognized specialties. **RESULTS:** The number of beds was not fluctuated throughout the examined eleven months. The bed capacity of the Hungarian hospitals was 48.6 beds per 10,000 people. 2.82% of the total hospitals beds, 1.37 beds per 10,000 people, were in intensive care units. The departments of internal medicine had 14.54% and the departments of surgery had 10.95% share in the Hungarian hospital beds. The percentage of occupancy of the intensive care units was 58.2%, of the departments of internal medicine was 75.63% and of the departments of surgery was 65.29%. The total Hungarian hospitals occupancy ratio was 69.84%, more than 10% higher compared to the intensive units. **CONCLUSIONS:** Without the variable costs of the treatments, the outlay of an intensive care unit is remarkable. A better occupancy of the intensive care units can increase the reimbursement for the hospitals or the decreases in the number of inpatient beds can be a cost-reduction strategy in the Hungarian Diagnosis-related Groups (DRG) financing system.

HEALTH CARE USE & POLICY STUDIES – Disease Management

PHP8

SURVEY ON THE MANAGEMENT OF ORAL ANTICOAGULATION THERAPY (OAT) IN ITALY

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OBJECTIVES: The management of the large patient population chronically treated with oral anticoagulation therapy (OAT) poses organisational challenges that in Italy are traditionally approached with centralised procedures, relying on hospital-based clinics. However, the availability of near-patient testing devices for the monitoring of OAT effectiveness (INR measurement) allows for alternative or complementary management models (patient self-monitoring—PSM). PSM has been proven effective and safe, and could be attractive, especially in the perspective of the patient, whose life could be severely affected by the costs and times implied in the process of the OAT management. In order to assess PSM potential economic impact in Italy, there is a need for real-world economic and organisational data. This study was planned to investigate treatment patterns and to estimate the average costs borne by OAT patients in Italy. **METHODS:** A 19-item questionnaire, investigating the characteristics of the patient, his/her therapeutic regimens, the structures involved and the distances from home, the frequencies and the amount of time implied in the management of the OAT,