OBJECTIVES: Diagnosis related groups (DRG) like financing method was introduced in Hungary in 1993 for acute care hospital activity determination. Due to the increased activity of the hospitals, an upper ceiling, the so called performance volume limit (PVL) was introduced in acute care hospital financing in 2004. The aim of our study was to analyze the effect of performance volume limit on DRG based hospital financing on the example of a Hungarian tertiary teaching hospital, the Clinical Centre of the University of Pécs. METHODS: Data derived from the financial database of the National Health Insurance Fund Administration, the only health care financing agency in Hungary. We gathered the hospital activity over the performance volume limit ceiling. We calculated the proportion of hospital activity over that ceiling measured by DRG cost-weights. The period 2004-2013 was involved into the study. RESULTS: The annual number of patients varied between 72671 (2007) and 82509 (2009) at the Clinical Centre of the University of Pécs. During the same period the annual performance volume limit for DRG costweights varied between 97784 and 116970. However due to the regulation of the upper ceiling of hospitals’ activity, 3.0 % (2007) to 14.9 % (2009) of that activity was reimbursed to the hospital and 96.9% to 85.1 % to the private health insurers. The average loss of reimbursement due to performance volume limit was 7.2 % of annual revenues between 2004-2013. CONCLUSIONS: The introduction of performance volume limit into the DRG based hospital financing resulted in a partial loss of hospitals’ revenues. Despite of in PVL ceiling the number of patients increased 1.2 times, thus the annual number of patients did not declined in this hospital.

HEALTH CARE USE & POLICY STUDIES – Disease Management

PHP4 CO-ADMINISTRATION OF TURMERIC POTENTIATES PREVENTIVE EFFECTIVE OF BLACK SEEDS IN METABOLIC SYNDROME
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OBJECTIVES: The metabolic syndrome (MS), a combination of metabolic abnormalities including obesity, diabetes, dyslipidemia and hypertension is associated with an increased risk of type 2 diabetes and stroke. Complex polyphenolic molecules, including herbs like Turmeric and Black seeds (Nigella sativa) can be used to prevent or as an adjuvant to control MS with fewer side-effects, better acceptability and cost effectiveness. This study determines if the co-administration of Turmeric potentiates the beneficial effects of black seeds on MS in rats. METHODS: Black seeds and Turmeric alone and in combination at different dosages were administered to fructose-fed rats. Blood pressure, fasting sugar and lipid profile were measured before and after 3 and 6 weeks of treatment. Intrinsic and extrinsic functional parameters were determined at 6 weeks of intervention. RESULTS: Black seeds at the dose of 0.6 g/kg prevented hypertension at week 3 of intervention, while at 6 weeks it prevented hypertension, hyperglycemia, dyslipidemia and endothelial dysfunction. Turmeric at the dose of 30 mg/kg prevented the anti-infective medicines among national reimbursement drug list in China
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OBJECTIVES: To compare the price changes of the essential and the non-essential anti-infective medicines in Tianjin, China using index method. METHODS: Data were extracted from inpatient claims in Urban Employee Basic Medical Insurance database. Price indices for 629 anti-infective medicines from 2006 to 2010 were calculated. RESULTS: The price index of essential anti-infective medicines decreased to 0.90 (in chained Fisher index formulas by quarter). The quantity weight unit was defined daily dose (DDD) and the price unit was the price per DDD. Price indices were calculated both at molecule level (defined by active ingredient) and product level (defined by molecule, strength, preparation, and manufacturer). RESULTS: The data contained 41 molecules and 786 products among the essential anti-infective medicines, and 81 molecules and 636 products among the non-essential anti-infective medicines. For the essential anti-infective medicines, the price index of product decreased to 0.90 (in chained Fisher index at molecule level) from 2006 Q1 to 2010 Q4, and the price index for the non-essential anti-infective medicines decreased to 0.73 (in chained Fisher index at molecule level) during the same period. For the essential and non-essential anti-infective, the results of chained Fisher and unanchored counterparts were similar (10% vs. 9% for the essential and 23% vs. 21% for the non-essential at molecule level). The price indices at molecule level decreased slower than the counterparts at product level (10% vs. 24% for the essential and 17% vs. 24% for the non-essential at chained Fisher index). CONCLUSIONS: The price of the essential and non-essential anti-infective medicines among national reimbursement drug list had decreased in Tianjin, China, but the price of the essential anti-infective medicines decreased slower than the non-essential anti-infective medicines.

PHP5 IMPACT OF DRUG POLICY ON IMPROVING ACCESS TO MEDICINES IN DELHI
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OBJECTIVES: To assess the impact of drug policy on improving access to essential medicines in Delhi. METHODS: The quantity of drugs procured from the Essential Drugs List (EDL) and outside the EDL, money spent on these, changes in stock out days for the key drugs. The implementation strategy includes elements of drug policy like use of EDL & STG, improved procurement system, training on drugs management & rational use of drugs. Retrospective data collected from stock registers. The data was for two years before (1993-1994, 1994-1995) and two years after (2000-2001, 2001-2002) the drug policy was assessed. Data collected from two large public sector hospitals in Delhi that serve a large section of the population through convenient purposive sampling method. RESULTS: After the implementation of the drug policy, the availability of drugs increased by 25% in the large and 95% in the medium hospital. The drugs procured from the EDL increased from 62% to 78% in the large and 74% to 87% in the medium hospital. Of the total expenditure, the money spent on essential drugs increased from 73% to 85% in the large and 87% to 93% in the medium hospital, whereas money spent on nonessential drugs decreased from 27% to 15% in the large and 13% to 7% in the medium hospital. The average number of stock out days for key drugs decreased from 33 to 16 days in the large and 30 to 11 days in the medium hospital. Availability of health services by patients increased by 8% in the large and by 3% in the medium hospital. CONCLUSIONS: The implementation of the drug policy in the state of Delhi increased availability of essential drugs. This kind of intervention can serve as a model for improving access to medicines by implementing an effective drug policy.

PHP9 THE IMPACT ON DRUG PRICE AND PATIENT SELECTION OF NATIONAL ESSENTIAL DRUG SYSTEM: EVIDENCE FROM INPATIENT RECORDS OF INSURANCE REIMBURSEMENT DATA
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OBJECTIVES: To explore the impact of market competition on pharmaceutical pricing, based on empirical analysis of patients’ use of pharmacological products in the Chinese pharmaceutical market. METHODS: Anti-infective pharmaceutical data were extracted from inpatient claims in Tianjin Urban Employee Basic Medical Insurance (UEBMI) database from 2006 to 2010. Based on product-quarter data, a quasi-hedonic regression model was used. The model was used to examine the impact of generic competition (the number of manufacturers within the same generic market) and therapeutic competition (the number of molecules in the ATC therapeutic category) on the price of drugs. RESULTS: The results indicated that pharmaceutical prices were inversely related to the number of generic competitors, but positively related to the number of therapeutic competitors. The prices of patent drugs and the off-patent drugs from original manufacturer were significantly higher than the prices of generic drugs. We also observed that the positive relationship between pack size and price which implied that manufacturers compete on volume discounts on large pack size. In addition, product age was inversely related to product price. In terms of manufacturers’ attributes, the results suggested that products of larger output, which produced their output, thus the annual number of patients did not declined in this hospital.