

attitudes of physicians in Germany towards telemonitoring. **METHODS:** In the first step fundamental determinants of adoption and acceptance were identified using a systematic literature review and transferred to a theoretical effect model. This model was used to create a quantitative questionnaire which was then used to interview online 201 outpatient and inpatient physicians from different fields of medicine. The participants (84.3% male, mean age 53 years) were asked to assess the empirically based economic attributes of telemonitoring regarding its implementation. **RESULTS:** The results show a lack of information regarding the financial risks of using telemedical technology, as only 14% of those interviewed said they felt sufficiently informed about the subject. Barriers to using telemedicine technology include missing arrangements for reimbursement, uncertain financial advantages and missing business models. In addition, the cost of implementation are indistinct for a broad majority of interviewees. On the other hand, in most queried dimension the user see a potential financial benefit due to telemedicine. The positive effects expected from telemonitoring were rated much better rated by those who already used telemonitoring in their professional life. **CONCLUSIONS:** In addition to a more precise legal framework, information security and quality-based guidelines, more emphasis must be placed on economic issues. It is also imperative that physicians be better informed about all aspects of telemedicine.

PHP112

EXTERNAL REFERENCE PRICING IMPACT OF THE INTEGRATION OF THE AMNOG DISCOUNT IN THE LIST PRICE

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OBJECTIVES: In Germany, the AMNOG law replaced free pricing by the early benefit assessment (EBA) since 2011. Manufacturers are free to set new drugs' prices for up to one year after which the price is negotiated between manufacturers and insurers based on the EBA. The negotiated price, that is consistently lower than the one set by the manufacturers, is considered as the official list price since April 1st 2014. The objective of this study is to evaluate the potential impact of this new law on the external reference pricing (ERP) in Europe. **METHODS:** A simulation model, developed for the European Commission, was used to simulate ERP's impact on Boceprevir and Telaprevir prices after five years, following the discount's inclusion on the official list price in Germany. ERP impact on price was evaluated in Belgium, Czech Republic, France, Germany, Luxembourg, Norway, Slovakia, Slovenia, Sweden, Switzerland, The Netherlands and UK for Boceprevir and in Belgium, Finland, France, Germany, Luxembourg, Norway, Poland, Slovakia, Slovenia, Sweden, Switzerland, The Netherlands and UK for Telaprevir. National policy inputs were obtained from a literature review and consultation of international organisations' representatives. Prices used at the start of the simulation were obtained from IMS. **RESULTS:** After five years, the relative price variation of Boceprevir between the scenario with AMNOG discount integrated in the list price and with no discount integrated in the list price was null in Belgium, Luxembourg, Sweden and UK, of -8.1% in the Netherlands, -9.2% in Norway, nearly -10% in Czech Republic, France, Slovakia and Switzerland, and -14% in Slovenia. For Telaprevir, the price variation was null in Belgium, Finland, Luxembourg, Slovenia and the UK, of -0.8% in Slovakia, -2.5% in the Netherlands, -2.9% in Norway, -6.9% in France and -8.6% in Switzerland. **CONCLUSIONS:** Integrating AMNOG discount in the list price impacts significantly the price in European countries due to ERP.

PHP114

A COMPARISON OF COBB-DOUGLAS, TRANSLOG AND ADDITIVE MODELS OF THE PRODUCTION FUNCTIONS OF INPATIENT SERVICES IN PUBLIC HOSPITALS

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OBJECTIVES: To investigate the adequacy of the widely used Cobb-Douglas and translog models of the production functions of hospital in-patient services. **METHODS:** To investigate the adequacy of the widely used Cobb-Douglas and translog models of the production functions of hospital in-patient services, we fitted these and additive models (AMs) to 2002-2007 data for the gynaecology and obstetrics, general and digestive surgery, internal medicine, and traumatology and orthopaedic surgery services of 10 public hospitals in Galicia (NW Spain). Production, measured as admissions weighted in accordance with their diagnosis-related groups (DRGs), was treated as a function of physician full-time equivalents as surrogate labour factor and number of beds as surrogate capital factor. **RESULTS:** For the General Surgery specialty the findings for the CD model indicate a better fit than those for the Translog and the AM, as it is shown by AIC value while R² (CD=96.32, Translog=96.30, AM=98.30) prefers the flexible AM. This is a good example of using AM as a tool for checking the behaviour of existing parametric models. In this case we can be confident with Cobb-Douglas estimations. Findings for the Internal Medicine specialty indicate responses for the CD (AIC=-17.789) seems to be more "robust" than those based on the AM (AIC=-13.113) and Translog (AIC=-15.939) models, R² (CD=95.88, Translog=95.80, AM=97.90) shows better fit for the AM regression model. **CONCLUSIONS:** Our results suggest that while the Cobb-Douglas and translog models suffice to represent the production functions of services with low average DRG weight, the greater flexibility of models such as AMs is required for services with higher average DRG weight.

PHP115

GENDER-RELATED BEHAVIORS IN DRUG CONSUMPTION IN ITALY

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OBJECTIVES: Sex differences in drug use have been demonstrated in several therapeutic area. However, there is a lack of overviews on sex differences of drug use in

entire populations. The aim of this study was to describe difference in prevalence of drugs use in the entire population in Italy between men and women. **METHODS:** We performed a cross-sectional study using 2012 data from the IMS LifeLink Treatment Dynamics™ LRx Database, an Italian-based administrative database that includes all prescribed drugs that are reimbursed by the Italian National Healthcare System. Pharmacological groups accounting for >90% of the total volume in Defined Daily Doses were considered. Crude and age adjusted differences in prevalence were calculated as risk ratios of women/men. **RESULTS:** 31 therapeutic categories were analyzed and there are significant differences for 30 of them. The largest sex difference in prevalence was found for thyroid preparations that were more common in women (59.3/1000 women and 10.9/1000 men, respectively). This was followed by antiinflammatory and antirheumatic products (114.0/1000 women and 67.4/1000 men) and antidepressants (62.1/1000 women and 26.8/1000 men). The pharmacological groups with the largest relative differences of dispensed drugs were drugs affecting bone structure and mineralization (RR 12.4), calcium (RR 7.0) and thyroid therapy (RR 4.9), which were dispensed to women to a higher degree. Antigout-agents (RR 0.4), vasodilators used in cardiac diseases (RR 0.7) and ACE inhibitors (RR 0.7) were dispensed to men to a larger proportion. **CONCLUSIONS:** This is the first Italian study that shows substantial differences between men and women. Our findings are congruent with those reported previously in the literature. Some of differences may be explained by variations in disease prevalence and severity, pathophysiology, or by other biological differences. However, it is also evident that other differences lack a rational medical explanation.

PHP116

VALUE OF LIFE AND COST OF PRE-MATURE DEATHS WITH THE PERSPECTIVE OF PRODUCTIVITY AS NET TAX REVENUE: A COMPARISON IN USA, CANADA, JAPAN AND AUSTRALIA

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OBJECTIVES: The Human Capital Theory emphasizes investments to the health care sector as an important element in achieving and sustaining economic development. Investments to health care sector improves macro and micro economic outcomes for the whole society. The aim of this study is to calculate the possible produced value for a life-time term (VLT) and cost of pre-mature deaths (CPD) from the productivity for USA, Canada, Japan and Australia. **METHODS:** Net present value (NPV) of the taxes and spending for each year were calculated. For calculating NPV in the government perspectives, two modelling approaches were combined, human capital modelling based on lives saved and lost productivity, and generational accounting, which accounts for a range of other government fiscal transfers to citizens. The possible produced value for a life-time term for each country were assumed as calculating the total NPV for each country depending on the countries life expectancy. CPD for each country were assumed as the difference between NPV on the year of life expectancy and each decades as life years 60, 50, 40, 30, 20, 10. The economic values for the model of each country derived from World Bank, OECD, UNESCO or WHO. **RESULTS:** Possible produced value for a life-time term for each country were calculated as US\$ 1.415.530, US\$ 774.663, US\$ 238.236 and US\$ 2.917.835 for USA, Canada, Japan and Australia, respectively. CPD per person for USA were calculated as US\$ -1.526.126, US\$ -1.661.257, US\$ -1.300.923, US\$ -796.547, US\$ -351.827 and US\$ -40.507 for the life years 10, 20, 30, 40, 50 and 60 respectively. The trend was same for Canada, Japan and Australia. **CONCLUSIONS:** However the study was based on a hypothetical model that calculated the NPV with the taxes and spending in a life-time term, the results of each country were parallel.

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HOME PHARMACIES: AN INSIGHT IN SELF-MEDICATION PRACTICE

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OBJECTIVES: Based on the content of drugs in households, it is possible to examine the inclination of patients towards self-medication and groups of drugs that are commonly used for this purpose. Taking into consideration the above, the present study aimed to investigate the self-medication practice, with an emphasis on self-medication with prescription only medications. **METHODS:** The study was performed in 8 months period and involved 383 randomly selected households. The study consisted of a personal insight into the inventory of all drugs. The interviewer recorded the total number of drugs in households and asked respondents for each the drug was obtained on prescription or bought in the pharmacy for self-medication. After the data were collected, drugs were classified according the Anatomical Therapeutic Chemical (ATC) Classification System. Drugs were also classified according to ALIMs (Medicines and Medical Devices Agency of Serbia) into two groups: prescription only medication (POM) and OTC (Over the Counter) drugs and then analyzed. **RESULTS:** The total number of drug items present in the 383 households was 4384 with an average of 11.4±5.8 per household. More than a half of drugs in households were prescription only medications (58.5%). Approximately one third of these drugs were obtained without prescription. The most common prescription only medications obtained without prescription were anti-inflammatory and antirheumatic products (41.8%) and antibacterials for systemic use (12.4%). Ibuprofen (61.0%), diclofenac (27.8%) and nimesulide (8.2%) were the most common self-medicated drugs in the group of antiinflammatory drugs, while the most frequently self-medicated antibiotics were cefalexin (25.7%), doxycycline (18.6%), cotrimoxazole (17.7%). **CONCLUSIONS:** In conclusion, our survey indicated that self-mediation with prescription drugs appeared to be a rather common practice, which is far away from the concept of "responsible self-medication", especially regarding antibiotics. **ACKNOWLEDGEMENT:** This work was supported by the Ministry of Science and Technological development, Republic of Serbia, project No. 41012.