The cost-effectiveness ratio (ICER) was €20 000/QALY. In a univariate sensitivity analysis, effects of lowering genotyping costs were examined. A probabilistic sensitivity analysis (PSA) was performed to investigate the impact of parameter uncertainty. In the base case, the incremental cost-effectiveness ratio (ICER) was €20 000/QALY. For an ICER of €20 000/QALY, a genotype facilitated improvement of 45% was needed and for ≤€5 000/QALY this was 22%. Lowering the genotype price to €10 000/QALY was cost-effective and even be cost-saving when genotyping costs drop. However, there is a need for more clinical evidence to support assumptions made in this model.

**ECONOMETRICS ANALYSIS OF NON-PRESCRIPTION MEDICINES EXPENDITURE AT COMMUNITY PHARMACIES IN MALAYSIA**

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**OBJECTIVES:** The purpose of this study was to develop the econometric model predicting the non-prescription medicines expenditure at community pharmacies in Malaysia.

**METHODS:** Thirteen non-prescription medicines data from 2009 to 2015 were collected. Utilization among Community Pharmacy Patrons in Malaysia (COMPACT2) and Sales of Non-Prescription Medicine in Community Pharmacy Malaysia (COMPACT2). The prices of non prescription medicines (NPM) in 2009 were updated to prices of 2014, based on Malaysian Consumer Price Index. There were four major components in the empirical model namely; socio-economic characteristics, health status, utilization behavior and community pharmacy data. The dependent variable was the logarithm function of expenditure for purchasing the NPM. Ordinary least square method on cross-sectional data was used to predict model of NPM among community pharmacy patrons. Results: Twenty two percent (22.3%) of variation in NPM expenditure was explained by socio-economic characteristics, health status, utilization behavior and pharmacy data. Lowering the genotype price to €10 000/QALY was cost-effective and even be cost-saving when genotyping costs drop. However, there is a need for more clinical evidence to support assumptions made in this model.

**INDIVIDUAL’S HEALTH – Patient-Reported Outcomes & Patient Preference Studies**

**PHH2**

**MEDICATION ADHERENCE AND HEALTH EXPENDITURE COMPARISON OF ATENOLOL AND METOPROLOL IMMEDIATE AND EXTENDED RELEASE FORMS**

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**OBJECTIVES:** The medication adherence of patients using widely prescribed beta blockers (Atenolol and Metoprolol) in their extended and immediate release salt forms was evaluated. Improving medication adherence has been shown to reduce health care costs. Analyzing the treatment having maximum medication adherence could reduce overall healthcare costs, offsetting the cost of the medication itself. The objectives of this study are to 1) compare the medication adherence of patients prescribed Atenolol and Metoprolol in their immediate release forms 2) determine the difference in healthcare expenditure between those highly adherent to the beta-blockers under study. **METHODS:** Secondary data analysis using the Medical Expenditure Panel Survey's Medicare Supplemental Health Insurance and Obstructive Sleep Apnea database. **RESULTS:** Twenty two percent (22.3%) of variation in NPM expenditure was explained by socio-economic characteristics, health status, utilization behavior and the information regarding utilization of community pharmacy.

**A SYSTEMATIC REVIEW OF THE USE OF THE TIME PREFERENCE MODEL TO PREDICT MEDICATION ADHERENCE BEHAVIOR**

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**OBJECTIVES:** Non-adherence to prescription medication has a significant impact on an individual’s quality of life and reduces the effectiveness of health care. This study examines the potential benefits and unnecessary utilization of healthcare services. Previous literature has been inconsistent as to what factors affect a patient’s adherence to prescription medication. The purpose of this study is to determine the extent that individuals are willing to discontinue future benefits for immediate benefits, has recently been acknowledged as a framework