**PHP14**

**GENERIC PRESCRIPTION MEDICINES PRICE VARIATION AMONG COMMUNITY PHARMACIES, PUBLIC HOSPITAL PHARMACIES AND DISPENSING DOCTORS IN ZIMBABWE**

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**OBJECTIVES:** To evaluate generic medicine price variation among private retail pharmacies, public hospital pharmacies and dispensing doctors in institutions in different provinces in Zimbabwe. To compare prices of drugs on the Essential drugs list of Zimbabwe (EDLIZ) and those not on the list and prices of imported versus locally produced medicines. **METHODS:** Using a standardized WHO and Health Action International (HAI) methodology and data collection form, we collected medicine price data for 58 institutions (comprising 27 community pharmacies, eight public pharmacies and 23 dispensing doctors) on 37 carefully selected and commonly used generic medicines. At each institution, we identified and recorded the price of the least price generic medicine. The study was done in five of the ten provinces in the country. We used a computerised WHO/HAI International Medicine Price Workbook for data analysis. **RESULTS:** Of the 37 generic medications, 18 and 22 were significantly expensive in dispensing doctors than in community pharmacies and public hospital pharmacies respectively (p < 0.05). Price of generic medications were not significantly different across provinces (p > 0.05). EDLIZ drugs had higher overall mean prices than non-EDLIZ drugs (t = 2.274; df = 35; p = 0.029). This was true in all the three sectors surveyed. There was no significant difference in overall mean drug prices between locally produced medicines and imported medicines (t = -1.313; df = 34; p = 0.197). Medications with high prices in the private sector also had high prices in the public sector (t = 0.98, p = 0.358). **CONCLUSION:** Zimbabwean generic medications’ prices are high and vary widely across sectors and by status of the drug (EDLIZ vs. non-EDLIZ drugs). This may have differential impacts on affordability and clinical outcomes.

**PHP15**

**PREFERENCES FOR DRUG REIMBURSEMENT CRITERIA IN SOUTH KOREA USING DISCRETE CHOICE EXPERIMENTS**

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**OBJECTIVES:** The purpose of this study was to elicit preferences for drug listing decision criteria in South Korea using the discrete choice experiment (DCE) method. **METHODS:** A DCE survey questionnaire was administered to a sample of respondents who were educated in the principle concepts of pharmacoeconomics and are decision makers or stakeholders within that field. To develop choice designs, we first decided on the attributes and are involved in the decision making process. Then orthogonal analysis tools that are developed, especially if they are expected to continue to be used in the decision-making process.

**RESULTS:** Parameter estimates from the model indicate that all attributes influenced respondent’s choice significantly and each parameter has an expected sign. The Lower the ICER, the higher the probability of choosing that alternative. Respondents also preferred low levels of uncertainty and a smaller impact on health service budget, and were likely to choose drugs for serious diseases rather than mild or moderate ones. We also found that those in our sample were willing to accept high ICER to get medication for severe diseases. **CONCLUSION:** This study demonstrates that the cost-effectiveness, budget impact and severity of disease are the main reimbursement decision criteria in South Korea, and that DCE can be a useful tool in analyzing the decision making process where a variety of factors are considered and prioritized.

**PHP16**

**ASSESSMENT OF DECISION MAKER NEEDS RELATED TO HEALTH ECONOMIC MODELS AND DATA ANALYSIS TOOLS**

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**OBJECTIVES:** The objective of this study was to gather information from individuals involved in the decision-making process for determining the value of health care interventions. **METHODS:** In April 2007, health care decision makers from organizations across the US were invited to participate in a focus group discussion. Prior to the focus group, participants completed a questionnaire, which inquired about the challenges and/or opportunities associated with using health economic and outcomes research information in the decision-making process.

**RESULTS:** Nine individuals with an average of over 14 years experience, representing major managed care and pharmacy benefit management organizations, the Veteran’s Affairs Department, and Academia participated. The three most challenging issues to health care decision makers included: 1) filtering through all the information needed to determine value; 2) agreeing with the key assumptions used in models and/or research reports; and 3) accepting model projections as an accurate reflection of outcomes that may be seen in their own patient populations. Findings revealed that decision makers are looking for more customization, more applicability to their own organizations, and increased transparency when reviewing outcomes research and/or health economic models. Other key findings included, decision maker interest in being involved in the development of tools and models from early phases, maximizing the user-friendly aspect of models (without compromising transparency), development of tools that help decision makers analyze real-world data, and the need for education and training as an essential component of successful implementation of health economic models and tools. **CONCLUSION:** This investigation gives critical insight into how future health economic and outcomes research models and data analysis tools should be developed. As payer needs continue to evolve, so must the models and analysis tools that are developed, especially if they are expected to continue to be used in the decision-making process.

**PHP17**

**RECOMMENDATIONS FROM REIMBURSEMENT AGENCIES FOR ADDITIONAL POST-LAUNCH RESEARCH.THE NEXT HURDLE**

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**OBJECTIVES:** There is increased interest in post-launch economic studies as more jurisdictions require economic data for the formal decision process of pricing and reimbursement of drugs. **METHODS:** We reviewed all of the final recommendations regarding all pharmaceutical submissions to the CDR from its inception in May 2004 through January 2007. Decisions were categorised as: listed, listed with criteria or not listed. Recommendations for further research post-launch were reviewed and
categorized regarding the specifics of the type of data requested. Using a comparative framework to examine the recommendations of CDR and NICE, we describe the frequency of the different types of data recommended for collection post-launch to highlight trends across jurisdictions. RESULTS: Thirty-four of 64 CDR submissions recommended ‘no listing’, 17 ‘list with criteria’, and 13 ‘list or list in similar manner as other drugs in the same category’. Of the 64 appraisals, 41 were recommended to conduct further research to either collect specific items of data (n = 28), conduct subgroup analysis (n = 13), or collect data using a more appropriate study design (n = 19). The most commonly requested item was long-term adverse events or safety data (16/28), and this observation is consistent with the fact that, to date, most post-launch studies are safety surveillance studies. In addition, 11 of 28 recommended the collection of clinically important outcomes, long-term effectiveness (7/28). Similarly, 41 of 48 NICE appraisals recommended further research to collect real-world data, including treatment pathways, effectiveness, and long-term effectiveness or adverse events. CONCLUSION: This review suggests that recommendations for post-launch research from CDR and NICE appear to be similar. This highlights the inherent weakness of regulatory trials as a piece of evidence in informing reimbursement decisions.

HEALTH CARE DECISION-MAKERS’ ATTITUDE ON HEALTH ECONOMICS RESEARCH

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OBJECTIVE: To assess lifetime cost-effectiveness of glatiramer acetate (GA) compared to natalizumab (NZ) in patients diagnosed with relapsing-remitting multiple sclerosis (RRMS) in the presence of long-term clinical evidence. METHODS: A literature-based Markov model was developed with patients transitioning through health-states based on Kurtzke expanded disability status scale (EDSS). Patients in the model are ≥21 years of age with RRMS and start in any of the health-states at diagnosis. Patients with an EDSS score below 6.0 receive treatment. Treatment effects for relapse and disease progression were obtained from clinical trials and long-term clinical evidence where available. Transition rates were estimated by applying a percent reduction of treatment effects of therapies to natural history rates of relapse and disease progression. Rates were adjusted for treatment discontinuation and persistent NZ antibodies. Patients incurred drug, other medical and lost worker productivity costs. Patients on NZ incurred additional costs for monitoring, diagnosis, and treatment of progressive multifocal leukoencephalopathy (PML), a possible serious adverse event for patients on NZ. Utility weights for each health state were taken from published utility assessments for people with RRMS. The primary outcomes of the model were lifetime costs and quality-adjusted life years (QALYs). Costs (2005US$) and outcomes were discounted at 3% annually. RESULTS: The lifetime costs per patient for GA were $430,242 and for NZ were $498,728. QALYs during the lifetime of a patient on GA were 9.303 and 9.300 for a patient on NZ. The incremental cost per QALY for patients on GA and NZ compared to symptomatic treatment alone was $298,879 and $525,463 respectively. GA is cost-saving when compared to NZ. PML had very little impact on results. CONCLUSIONS: While incorporating all the long-term clinical evidence, model results indicated that GA was both less costly and more effective over a patient’s lifetime than NZ in treating RRMS.

IMMUNIZATION PROGRAM IN PARAGUAY: SOCIAL AND BEHAVIORAL DETERMINANTS AND ORGANIZATIONAL IMPACT

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OBJECTIVES: Public health care system in Paraguay is highly centralized, compared to other Latin American sectors, and more than half of the population relies on it in order to receive formal treatment. The National Immunization Program (EPI) is not an exemption, affecting the way local/departmental resources in immunization are allocated, impacting on the effectiveness of these investments. In addition, differences in population characteristics among departments, in terms of health care behavior, income and education, and the use of formal medicine patterns by original ethnic groups might affect EPI’s effectiveness. The goal of the paper is to identify how supply side characteristics (financial, managerial and immunization strategies) and demand side factors influence immunization coverage. METHODS: The document proposes a sequential model, where local health authorities intent to fill the gap in immunization financing and managerial needs, based on the resources allocation and coverage strategy defined by the national health ministry, that leads the Paraguayan immunization design. As a result, a logistic model was implemented, where the likelihood of being vaccinated is tested as a dependent variable, where geographical, educational and ethnic barriers are checked. In addition, supply variables related to financing, coverage strategies and communicational efforts are included. The study analyze data from the Integrated National Household Survey (2001), complemented with a series of immunization effectiveness indexes constructed based on management, financing and vaccine provision criterion, distinguishing among financial sustainability, management effectiveness and antigen supply volatility, collected from official sources and interviews with key personnel by region. RESULTS: Health care policy variables were statistically significant, showing the relevance of social communication, measured in terms of physical, monetary and human resources involved. CONCLUSION: The paper shows the importance of socio-economic-cultural barriers on the probability of being immunized, based on health behavior, presence of formal health insurance, and main source of care (hospital, traditional medicine, etc.).

THE GENERIC COST-EFFECTIVENESS OF HEALTH CARE

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OBJECTIVES: To assess the generic cost-effectiveness of health care. METHODS: We estimated the contribution of prevention and medical care towards population health for infectious diseases, cancers, and cardiovascular diseases. This contribution was defined as the difference between the current burden of disease (BoD) and its counterfactual: a ‘null’ situation without selected prevention (vaccinations, screening, and preventive medication) and medical care, and accounting for the role of other health determinants such as improvements in housing and nutrition, and reduced smoking. The counterfactual was back-calculated with use of historical data on incidence, survival, mortality, and the prevalence of risk factors. The Global Burden of Disease methodology was applied, combining incidence, prevalence, mortality, and disability weights into multi-state lifetables. If required, epidemiological estimates were made internally consistent with advanced modelling techniques (DISMOD2). The difference between the current BoD and the