Health State Utilities of Risks Associated with Antiretroviral Treatment for Human Immunodeficiency Virus (HIV)

L. S. Matza, Evidera, Bethesda, MD
K. C. Chung, Gilead Sciences
K. J. Kim, Evidera, Bethesda, MD
Trena M. Paulus, University of Georgia

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OBJECTIVES: Annual trivalent influenza vaccines (TIV) containing three influenza strains (A/H1N1, A/H3N2, and one B) have been recommended in Colombia since 2007. However, with the spread of the 2009 H1N1 pandemic and the fact that public health services were overburdened with TIV versus TIV in Panama from 2006 to 2013. METHODS: A static model published by Reed et al. in 2012 was adapted to Panama and stratified by age group. In addition, B-lineage cross-protection was included based on published sources. We calculated the hypothetical impact of QIV compared with TIV over seven influenza seasons (2009 pandemic year excluded) using virologic circulation, vaccine coverage, vaccine effectiveness and attack rate. In absence of B-lineage distribution in Brazil, data was considered to be identical in both vaccine-related outcomes (influenza cases, hospitalisations, deaths), two sets of inputs were used. Influenza-related costs were estimated from societal perspective in Panamanian balboas (1 per US dollar). RESULTS: Over the 2006-2013 period, QIV would have prevented 7,519 influenza B cases compared with TIV, averting between 2,756 and 5,564 outpatient visits, between 28 and 2,202 hospitalisations and between 6 and 930 deaths. This translates into influenza-related avoided costs of between 137 and 3,599 thousand balboas. In 2012, year with high B-lineage distribution in Colombia for 2007-2013, Brazilian data were considered. For influenza-related outcomes (outpatient visits, hospitalisations, visits, 1,539 hospitalisations, 650 deaths and 2.5 million balboas of influenza-related costs in the upper bound. CONCLUSIONS: The wider protection offered by QIV would reduce the number of influenza infections and its related complications, leading to influenza-related costs avoided. Herd effect was not taken into account, underestimating the benefits of QIV vaccination. More robust local data are needed to better assess benefits of QIV.

**References:**

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- Creative-Ceutical, Paris, France, 1Sanofi Pasteur, Bogota, Colombia, 2Sanofi Pasteur, Lyon, France, 3Sanofi Pasteur Mexico City, Mexico, 4Genos Memorial Institute for Health Studies, Panama City, Panama, 5Panama Ministry of Health, Panama City, Panama

**PIRN2: ADHERENCE TO ANTIRETROVIRAL THERAPY AMONG PATIENTS LOST-TO-FOLLOW-UP IN A HIV CLINIC IN A PRIVATE-FOR-PROFIT HEALTH FACILITY IN KAMPALA, UGANDA**

Anganze R, Turayagenda F

Makere College of Health Sciences, Makerere University, Kampala, Uganda

**OBJECTIVES:** To determine the level of adherence to ART among HIV positive patients lost-to-follow-in an HIV clinic in a private-for-profit health facility in Kampala, Uganda. METHODS: A cross-sectional study design was conducted in an HIV clinic in Kampala district. Medical records of 550 HIV positive, attending the HIV clinic from April 2005 to April 2012 in a private-for-profit health facility were analyzed. Per ART dataset, 147 HIV positive patients were identified as being on ART and their HIV care among 550 datasets accessed for interviews. Loss-to-follow up was regarded as HIV positive patients who had not attended ART clinic for a period or 4 or more months. A telephone interview was conducted using a pretested structured questionnaire in order to assess adherence to ART and factors associated with loss to follow up from ART services. Results: Of 147 HIV positive patients, 77% (114) returned to ART care within 90 days or less, and 23% (33) did not return at all. ART adherence to ART was 77.7% while level of loss to follow up was 26.7%. Predictors of adherence to ART were, distance from health facility (AOR = 0.01, 95% CI = 0.00-0.33), health worker attitude (AOR = 9.43, 95% CI = 1.55 – 57.43) and patients perception of lifetime ART medication (AOR = 26.54, 95% CI = 3.33 – 211.2) CONCLUSIONS: About 8 in 10 HIV positive patients’ lost-to-follow up adhered to ART. Interventions such as comprehensive HIV training targeting health worker attitudes and perceptions of HIV positive patients such as pre- and post HIV test counseling may further improve ART adherence.

**References:**

- Adeline T1, King R2, Schlech WF3, Faridah M1, Kakaire T1, Rosalind Forg Natives Ratsanfahi P1. Infectious Diseases Institute, College of Health Sciences Makerere University, Kampala, Uganda, 1University of California, San Francisco, San Francisco, CA, 2Dalhousie University, Halifax, Nova Scotia, Canada

**PIRN3: EXPLORING ATTITUDES AND PERCEPTIONS OF PATIENTS AND STAFF TOWARDS A FEE FOR SERVICE “AFTER HOURS” CLINIC SUPPLEMENTING FREE HIV SERVICES IN UGANDA: A QUALITATIVE STUDY**

Adelline T1, King R2, Schlech WF3, Faridah M1, Kakaire T1, Rosalind Forg Natives Ratsanfahi P1. Infectious Diseases Institute, College of Health Sciences Makerere University, Kampala, Uganda, 1University of California, San Francisco, San Francisco, CA, 2Dalhousie University, Halifax, Nova Scotia, Canada

**OBJECTIVES:** The scale up of HIV services and access to anti-retroviral therapy in Africa has been made possible in the last 10 years. However, it is important that more potential patients are explored for sustainability of services. The adult HIV clinic at the Infectious Diseases Institute (IDI) in Kampala, Uganda has approximately 8000 registered patients who receive care free of charge. We are exploring the possibility that some patients are willing /able to contribute to the costs of cardiovascular disease (CVD), kidney disease, and low bone mineral density. Some antiretrovirals (ART) further increase the risks of these events. The purpose of this study was to estimate health state utilities associated with these risks so that the values could be used in cost-utility models. METHODS: Qualitative thematic analysis was used to examine 4 in total). RESULTS: There were six key themes that emerged regarding participant perceptions of the AHC. Access to care (positive and negative), benefits and disadvantages of an AHC, key categories of health care services, recommending the service to friends, sliding scale fee-for-service, and suggestions to improve service delivery. Results suggested that some patients were willing to pay for consultation for read-name drugs, lab tests and other services. All were willing to recommend friends/relatives. Respondents agreed that, as a sign of social responsibility, some money could be used to help underserved HIV patients. All patients considered the AHC to be perceived as beneficial to patients because it provides access to HIV services at convenient times. Many patients are willing to pay for this enhanced service. Promotion of quality private-public partnerships aiming to sustain quality HIV services in Uganda should be encouraged.

**References:**

- Infectious Diseases Institute, College of Health Sciences Makerere University, Kampala, Uganda, 1Infectious Diseases Institute, College of Health Sciences Makerere University, Kampala, Uganda, 2Creative-Ceutical, Paris, France, 1Sanofi Pasteur, Bogota, Colombia, 2Sanofi Pasteur, Lyon, France, 3Sanofi Pasteur Mexico City, Mexico, 4Genos Memorial Foundation, Bogota, Colombia

**PIRN4: HEALTH STATE UTILITIES OF RISKS ASSOCIATED WITH ANTIRETROVIRAL TREATMENT FOR HUMAN IMMUNODEFICIENCY VIRUS (HIV)**

Matza LS1, Chung KC2, Kim KI3, Paulus T4, Davies EW5, Stewart KD6, McCousey GA7, Fordyce MA8, Evison B9, O’Connor B10, Sim X11, Yang W12, Smit AB13, Marescaux C14, Homberg K15, Guedez F16, Whelan C17, Van de Heyning P18, Smythe RB19, Schapiro WR20, Enosfor T21, Symon G22, Lozier A23, Scherl S24, Baerwald C25, Crookes R26, Hildesheim A27, Redeker ES28, Baudelet D29, et al. 31Infectious Diseases Institute, College of Health Sciences Makerere University, Kampala, Uganda, 1Infectious Diseases Institute, College of Health Sciences Makerere University, Kampala, Uganda, 2Creative-Ceutical, Paris, France, 3Sanofi Pasteur, Bogota, Colombia, 4Genos Memorial Foundation, Bogota, Colombia

**OBJECTIVES:** People with human immunodeficiency virus (HIV) have increased risk of the impacts (mortality and morbidity) of chronic conditions themselves, rather than risk, had larger disutilities (e.g., stage 4 chronic kidney disease; disutility = 0.19). CONCLUSIONS: The vignette-based TTO method was feasible for quantifying the utility impact of ART-related risks, deterring small but consistent disutilities. These disutilities may be used in cost-utility models comparing the value of treatments for patients with HIV.

**References:**

- Infectious Diseases Institute, College of Health Sciences Makerere University, Kampala, Uganda, 1Infectious Diseases Institute, College of Health Sciences Makerere University, Kampala, Uganda, 2Creative-Ceutical, Paris, France, 3Sanofi Pasteur, Bogota, Colombia, 4Genos Memorial Foundation, Bogota, Colombia

**PIRN5: DISUTILITIES ASSOCIATED WITH CENTRAL NERVOUS SYSTEM (CNS) SIDE EFFECTS OF ANTIRETROVIRAL THERAPY (ART) IN HIV PATIENTS**

Galopp K1, Acaster S2, Nafiea B3, Bogata P4, Ralley I5, Perdriau R6.

1Acaster Consulting Ltd, London, UK, 2Nafies Consulting, London, UK, 3Cigleod Sciences Eureka Ltd, Uxbridge, UK

**OBJECTIVES:** The introduction of effective ART in HIV has led to substantial reductions in morbidity and mortality. However adverse events (AEs) associated with ARTs can lead to discontinuation, and worsening of health-related quality of life (HRQoL). This study aimed to elicit absolute disutility values for CNS side effects associated with ARTs in France. METHODS: Health states were derived from interviews with HIV patients (N=8) and one specialist clinician in France. HS were developed to describe a stable HIV positive (on treatment), and nine CNS side effects associated with ARTs in France. RESULTS: A total of 208 participants completed utility interviews (51.4% female; mean age 44.6). The mean utility of the basic HIV health state (describing a theologically suppressed patient treated with ART) was 0.86 (0.14). Adding a description of risk to this basic health state was associated with statistically significant disutility (i.e., utility decreases) risk of renal problems (disutility = −0.03), risk of bone problems (disutility = −0.08), and risk of myocardial infarction (−0.05). Health states including the medical conditions themselves, rather than risk, had larger disutilities (e.g., stage 4 chronic kidney disease; disutility = −0.19). CONCLUSIONS: The vignette-based TTO method was feasible for quantifying the utility impact of ART-related risks, deterring small but consistent disutilities. These disutilities may be used in cost-utility models comparing the value of treatments for patients with HIV.