OP130 Estimating The Economic Burden Of HIV/AIDS In Türkiye Towards The Next Decade

Yaren Erkut, Mustafa Kurnaz, Ismail Balik,
Birol Tibet (drbiroltibet@gmail.com) and Güvenc Kockaya

Introduction: Approximately 34.8 million people globally are affected by HIV, 34,000 of whom are in Türkiye, and the impact of HIV continues to grow. Not providing the necessary treatment eventually leads to life threatening AIDS-related consequences. In this study, a descriptive analysis of the published official data on HIV/AIDS was undertaken to assess existing statistics and raise social awareness. The aim was to provide data that will help decision makers in future planning by forecasting the possible number of cases and treatment costs to 2030 using available statistics in Türkiye.

Methods: The forecast of HIV-infected patients, deaths, and healthcare costs to 2030 were calculated using linear regression based on data published between 1985 and 2022 in the literature or by official authorities. The proportion of past deaths caused by AIDS was used to forecast deaths, and the number of patients living with HIV was estimated indirectly using this forecast. Possible treatment expenditures related to HIV/AIDS in Türkiye were estimated based on published healthcare cost data and the number of living patients obtained by considering the possible increase in HIV/AIDS cases, future inflation predictions from the Turkish Central Bank, existing literature, and information from statista.com.

Results: Estimates suggested that 3,002 new cases of HIV/AIDS in 2021 will become 5,709 among a total of 74,227 living patients in 2030. The 598 deaths reported between 1985 and 2022 are predicted to rise to 1,256 by 2030. Estimation of the total treatment cost of HIV/AIDS was TRY1,051,026,183 (USD118,683,580) in 2021, which was estimated to reach TRY15,432,842,049 (USD296,450,696) by 2030. This consisted of outpatient visits (TRY246,710,838 [USD4,739,088]), laboratory tests (TRY2,072,489,815 [USD39,810,623]), inpatient visits (TRY1,352,192,479 [USD25,974,373]), management of complications (TRY3,371,126,960 [USD64,756,247]), and antiretroviral therapy drugs (TRY8,390,321,957 [USD161,170,365]).

Conclusions: The prevalence of HIV/AIDS is expected to rise by 137 percent by 2030, with the economic burden increasing 14.7 times in TRY (2.5 times in USD) from 2021 to 2030 in Türkiye. This proves the severity of the situation and the need for relevant policy measures for society.

OP133 COVIDIAGNOSTIX: Health Technology Assessment For COVID-19 Serological Tests As Companion Diagnostics To Vaccination

Rossella Tomaiuolo, Chiara Di Resta, Pietro Derrico,
Matteo Ritrovato and
Giuseppe Banfi (banfi.giuseppe@unisr.it)

Introduction: In scenarios of vaccine scarcity or the context of organizational complexity, it is necessary to define prioritization strategies for allocating vaccine in compliance with the criteria of equity and efficiency of health resources. The COVIDIAGNOSTIX project, based on health technology assessment (HTA), assessed the role of SARS-CoV-2 serological tests as a companion diagnostic in the definition of strategies for vaccine administration. To guarantee evidence support for health policy choices, two different strategies were analyzed: one based on administering the vaccine booster dose to the entire population (VACCINE strategy) and the other based on allocation criteria (TEST&VACCINE strategy).

Methods: An Italian multidisciplinary team conducted a decision-oriented HTA using a combination of the EUnetHTA Core Model and the multicriteria decision analysis model based on the Analytic Hierarchy Process.

Moreover, the Department of HTA method was integrated with the Susceptible-Exposed-Infectious-Recovered model, appropriate modelling techniques, simulation, and quantification of uncertainty that considered the ability to reduce deaths and to contain the pandemic. After identifying the evaluation elements and the decision-making structure, the weights of the evaluation areas and key performance indicators were calculated. This is a constituent part of the mathematical model of data processing, as the Analytic Hierarchy Process was based on a structured questionnaire that compared the relative importance of the two elements on a qualitative scale (1=equal importance; 9=more important).

Results: The processing of the scores attributed to the key performance indicators concerning all the evaluation domains resulted in a performance of 94 percent for the TEST&VACCINE strategy and 84 percent for the VACCINE strategy. The TEST&VACCINE strategy was the most advantageous in various scenarios due to the greater speed of response from an operational and economic point of view.

Conclusions: The assessment schemes defined by COVIDIAGNOS-TIX (i.e., technologies, intended use, and settings), which highlight the characteristics that differentiate the tests from each other and guarantee a timely and appropriate evaluation, can be adapted to respond to similar health policy management situations.