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Title:	COST-UTILITY ANALYSIS OF TENOFOVIR IN COMPARISON WITH OTHER NUCLEOSIDE ANALOGUES (AN) IN CHRONIC HEPATITIS B (CHB) TREATMENT
Author(s):	Gwiosda B1, Krzystek J1, Nieszczyński G1, Osiewalski K1, Mierzejewski P2, Kazmierski M2, Władysiuk M1, Plisko R11HTA Consulting, Krakow, Poland, 2Gilead Sciences Poland Sp. z o.o., Warszawa, Poland

OBJECTIVES:To compare cost-effectiveness of tenofovir and other AN in treatment of adults with CHB in Poland.

METHODS: Analysis was performed from the public payer perspective. A lifetime Markov model (3-month cycle) was developed defining health states based on HBV_DNA level. Following events were included: complications (liver cirrhosis, hepatocellular carcinoma), drug resistance and relapse after remission. Analysis was performed in total population (regardless of the HBeAg status) and in subpopulation of HBeAg(+) patients. Analysis for HBeAg(-) patients was impossible to conduct due to lack of effectiveness data. Effectiveness parameters were based on MTC conducted in systematic review of randomized clinical trials. In the analysis following costs were included: antiviral drugs, monitoring, hospitalization and CHB complications treatment. The reliability of the estimates was examined by sensitivity analyses of model parameters.

RESULTS:In total population the estimated lifetime QALY per patient were: 12.33 for tenofovir, 11.32 for entecavir and 11.64 for adefovir. The estimated differences in QALYs between tenofovir and comparators were: 1.00 in comparison to entecavir and 0.69 in comparison to adefovir. The differences were not statistically significant. Average lifetime costs per patient were: 223,519 PLN for tenofovir, 358,565 PLN for entecavir and 349,535 PLN for adefovir. The resulting difference in costs between tenofovir and comparators were: -135,045 PLN in comparison to entecavir and -126,016 PLN in comparison to adefovir. The results for HBeAg(+) subpopulation were close to results for total population.

CONCLUSION: Both in total population, as well as in HBeAg(+) subpopulation, tenofovir dominates adefovir and entecavir, which means that it allows for greater health effects (QALY, LYG) with lower costs of treatment. Results of probabilistic sensitivity analysis indicates that tenofovir therapy is cost-effective (for the assumed threshold of three GDP: 102,045 PLN) with a probability of ca 82% when compared with adefovir and ca 86% in comparison to entecavir.