The impact of delaying access to innovative therapies in emerging markets for chronic lymphocytic leukemia: a modeling study

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ABSTRACT

Objective: Chronic lymphocytic leukemia (CLL) is one of the most prevalent types of leukemia. This study explores the impact of delaying access to innovative therapies in patients with treatment-naïve (TN) and relapsed/refractory (R/R) CLL in emerging markets, where access to new medicines can be restricted or delayed.

Methods: A partitioned-survival model with three health states (progression-free, progressed-disease, and death) was developed to compare health outcomes between a world with scenario (where patients have immediate access to the innovative therapy zanubrutinib, a next-generation Bruton tyrosine kinase inhibitor) and a world without scenario (where patients are first treated with standard of care [SoC] during a delay period, prior to receiving zanubrutinib). SoC included ibrutinib (Turkey and Argentina) and fludarabine, cyclophosphamide, and rituximab (FCR; Brazil and South Africa). Access delay was defined as the period from regulatory approval of zanubrutinib to patient access and varied from 1-year (1Y) to 5 years (5Y). Outcomes are reported per 1,000 patients for both quality-adjusted life years (QALYs) and number of disease progressions averted, if access to zanubrutinib had not been delayed.

Results: In TN CLL, delaying access to zanubrutinib resulted in QALY losses ranging from 43 (1Y Argentina) to 123 (5Y Brazil). Progressions averted had zanubrutinib not been delayed ranged from 26 (1Y) to 106 (5Y) in Turkey and Argentina and 75 (1Y) to 273 (5Y) in Brazil and South Africa.

For R/R CLL, QALY losses ranged from 29 (1Y delay in Argentina) to 671 (5Y delay in Brazil). Progressions averted were higher in Brazil and South Africa (396 [1Y] to 507 [5Y]) than in Turkey and Argentina (36 [1Y] to 149 [5Y]).

Conclusion: Despite the assumption of equivalent overall survival across treatments, this analysis suggests that delaying access to innovative therapies, such as zanubrutinib, impacts disease progression and QALYs in patients with TN or R/R CLL.