

## Baricitinib + remdesivir cost saving vs remdesivir for hospitalised COVID-19 patients in the USA

For patients hospitalised with COVID-19 in the USA, combination baricitinib + remdesivir appears to result in net cost savings and benefits, compared with remdesivir alone, according to findings published in *Advances in Therapy*.\*

The US-based researchers constructed a three-state model to estimate the costs and patient utility (quality-adjusted life years [QALYs] and life years [LYs]) associated with COVID-19 hospitalisation, immediate post-hospital care, and lifetime medical care. The analysis was from both payer/partial-payer and hospital (direct in-hospital costs only) perspectives. The model took payer type distributions from the US Premier Healthcare Database; the majority of the modelled population were enrolled in Medicare (52.9%) or had private payer coverage (27.9%). Efficacy data were taken from the literature and costs were taken from reimbursements, with the cost of remdesivir 100mg set at \$390 (Medicare/Medicaid patients) or \$520 (private/uninsured) and baricitinib 2mg set at \$75.50 per tablet. A 3% discount rate was applied to future costs and benefits.

In the base-case payer perspective, remdesivir + baricitinib resulted in total costs of \$US7962 overall and \$8960 in patients requiring oxygen. Total QALY and LY gains were 0.3365 and 0.446, respectively, in all patients, and 0.4107 and 0.513 in those requiring oxygen. The incremental cost per QALY gained was \$22 334 overall and \$21 818 for patients requiring oxygen, and \$17 858 and \$17 458 per LY gained, respectively. Respective net cost reductions were \$252 for all patients and \$748 for oxygen-requiring patients, net QALY gains were 0.0018 and 0.0023, and net survival gains were 2.7% and 3.2%. The researchers note that "most of the incremental cost and QALYs were accrued during the recovered time period owing to more patients surviving the hospitalization. A small portion of the incremental QALY gained was due to the greater efficacy of BARI-REM [baricitinib + remdesivir] versus REM in reducing time to recovery as well as reducing transitions to worse health states".

\* The study was funded by Eli Lilly and Company.

Kelton K, et al. Cost-Effectiveness of Combination of Baricitinib and Remdesivir in Hospitalized Patients with COVID-19 in the United States: A Modelling Study. *Advances in Therapy* : 22 Nov 2021. Available from: URL: <https://doi.org/10.1007/s12325-021-01982-6> 803614965