

Baricitinib + SOC cost effective vs SOC for patients hospitalised with COVID-19 in the USA

For patients hospitalised with COVID-19 in the USA, the addition of baricitinib to standard of care (SOC) appears to be cost effective from both a payer and hospital perspective, according to findings published in *Clinical Therapeutics*.*

The researchers constructed a cost-utility model using data from the Phase III COV-BARRIER (Efficacy and Safety of Baricitinib for the Treatment of Hospitalised Adults With COVID-19) trial, which compared baricitinib + SOC vs SOC alone for patients admitted to hospital for COVID-19. The primary analysis was from a third-party payer perspective over a lifetime time horizon and included costs** for hospitalisation, post-discharge care, post-recovery care and indirect (lost productivity) costs.

From a payer perspective, baricitinib + SOC resulted in an incremental total cost of \$US17 276, a total quality-adjusted life-year (QALY) gain of 0.6703, and a total life-year (LY) gain of 0.837, compared with SOC alone. The addition of baricitinib increased survival by 5.1% and the use of mechanical ventilation was reduced by 1.6%. The incremental cost-effectiveness ratio was \$25 774 per QALY gained and \$20 638 per LY gained; a "mortality-only" scenario analysis yielded similar results (\$26 862 per QALY gained and \$21 433 per LY gained). Secondary analysis from a hospital perspective (hospitalisation costs minus Medicare Severity-Diagnosis Related Groups reimbursement), found that baricitinib + SOC was more effective and less costly than SOC alone (dominant) in the base case, and had an incremental cost of \$38 964 per death avoided in the mortality-only scenario.

"Cost-effectiveness was demonstrated from both the payer and the hospital perspectives. These findings were robust to sensitivity analysis and to conservative assumptions limiting the clinical benefits of baricitinib to the statistically significant reduction in mortality demonstrated in the COV-BARRIER trial", conclude the authors.

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** Costs (inflated to 2020 US dollars) were estimated from the COV-BARRIER trial, published literature and local databases.

Ohsfeldt R, et al. Cost-Effectiveness of Baricitinib Compared With Standard of Care: A Modeling Study in Hospitalized Patients With COVID-19 in the United States. *Clinical Therapeutics* : 4 Oct 2021. Available from: URL: <http://doi.org/10.1016/j.clinthera.2021.09.016>

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