

Remote pulse-ox monitoring for COVID-19 patients saves costs, improves outcomes in the USA

Compared with current standard care for COVID-19 patients with moderate to severe illness in the USA, remote pulse-oximetry monitoring is associated with lower costs and improved outcomes by increasing "the specificity of those requiring follow-up care for escalating symptoms", say researchers who published their findings in *Value in Health*.

They developed a Markov model with a 3-week time horizon from a US health-sector perspective to compare remote pulse-ox monitoring versus standard care in patients presenting with moderate to severe COVID-19 symptoms. For remote monitoring, patients remained at home with a pulse-ox transmitting vital signs to a hospital for 5 days; for standard care (hospitalisation), patients were assumed to be under observation at the hospital for 7 days. Costs (2020 values) and outcomes were derived from real-world data from a university hospital and published literature. The cost-effectiveness threshold was \$US100 000 per quality-adjusted life year (QALY).

Remote pulse-ox monitoring dominated current standard care: remote monitoring reduced costs by \$11 472 and resulted in 0.013 more QALYs gained, yielding an incremental net monetary benefit of \$12 809 per QALY. There were also 87% fewer hospitalisations and 77% fewer deaths in patients receiving remote pulse-ox monitoring. Sensitivity analyses confirmed the robustness of the results.

"At-home telemonitoring with pulse-ox devices presents a cost-effective solution to handle surges of patients presenting with COVID-19 symptoms in the ED [emergency department]", conclude the authors.

Padula WV, et al. A Cost-Utility Analysis of Remote Pulse-Oximetry Monitoring of Patients With COVID-2019. *Value in Health* : 28 Oct 2021. Available from: URL: <https://doi.org/10.1016/j.jval.2021.09.008> 803607954