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Covid-19: Remdesivir probably reduces recovery time, but evidence is uncertain, panel finds

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Remdesivir may be effective in reducing recovery time of patients with severe covid-19, although the certainty of the evidence is low, a panel of international experts has concluded.¹

As part of *The BMJ's* Rapid Recommendations initiative, the panel reviewed new evidence and made a weak recommendation for the use of the antiviral drug for patients with severe covid-19. They strongly supported continued enrolment of patients into ongoing clinical trials.

However, the panel also advised caution over the potential opportunity cost of using remdesivir while the evidence base was uncertain. They warned that the use of the drug may divert funds, time, attention, and workforce away from other potentially worthwhile treatments.

The reviewers, including experts from Canada, the UK, China, Spain, and South Korea, analysed 23 randomised controlled trials in which people with suspected or confirmed covid-19 were randomised to drug treatment, standard care, or placebo.

The team said that the “certainty of the evidence for most comparisons was very low because of risk of bias (lack of blinding) and serious imprecision.” They concluded that glucocorticoids (such as dexamethasone) “were the only intervention with evidence for a reduction in death compared with standard care (risk difference 37 fewer per 1000 patients, 95% credible interval 63 fewer to 11 fewer, moderate certainty) and mechanical ventilation (31 fewer per 1000 patients, 47 fewer to 9 fewer, moderate certainty).”

There are three other drugs that may reduce symptom duration when compared with standard care: hydroxychloroquine (mean difference -4.5 days, low certainty), remdesivir (-2.6 days, moderate certainty), and lopinavir-ritonavir (-1.2 days, low certainty).

However, the panel said that hydroxychloroquine “might increase the risk of adverse events compared with the other interventions.”

“Remdesivir is the only intervention in which moderate certainty exists supporting benefits for both time to symptom resolution and duration of mechanical ventilation, but it remains uncertain whether remdesivir has any effect on mortality and other outcomes important to patients,” the paper said. “Remdesivir probably reduces length of hospital stay.”

The study was funded by the Canadian Institutes of Health Research.

The authors suggested that future research should focus on optimal dose and duration of treatment and whether there are specific groups of patients most likely to benefit from remdesivir.

¹ Siemieniuk RAC, Bartoszko JJ, Ge L, et al. Drug treatments for covid-19: living systematic review and network meta-analysis. *BMJ* 2020;370:m2980.

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