Remdesivir reduces COVID-19 mortality in a real-world setting

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"Given the inconsistent evidence regarding the survival benefit it confers, we sought to investigate the effectiveness of remdesivir in patients with COVID-19, who were admitted to an ICU in Japan," says Mariko Hanafusa, first author of the study. "All of these patients were being treated with corticosteroids for pneumonia, and some were receiving mechanical assistance for breathing."

The researchers analyzed the medical records of 168 patients with COVID-19 admitted to the ICU at TMDU Hospital between April 2020 and November 2021. The patients were divided into groups based on whether or not they were also treated with remdesivir.

"The results showed a clear difference in patient survival based on when they received treatment with remdesivir," states Takeo Fujiwara, senior author of the study. "In-hospital mortality rates were significantly lower in ICU patients who received remdesivir and corticosteroids within 9 days of symptom onset than in patients whose treatment with remdesivir started 10 or more days after they first developed symptoms."

A small number of patients experienced adverse events such as a rash, requiring them to stop taking remdesivir, while a greater proportion experienced acute kidney injury or liver injury but were able to continue treatment.

"Our findings suggest that, at least in a largely Japanese patient population with severe to critical COVID-19, early treatment with remdesivir and corticosteroids is associated with decreased mortality," says Hanafusa.

Given the survival benefit demonstrated in this study, the time that has elapsed since symptom onset should be considered when using remdesivir to treat patients who are critically ill with COVID-19. The varying effectiveness of remdesivir at different time points may reflect increasing viral load and...
lung damage over time, and could help explain why the effectiveness of this drug remains controversial.


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