

Understand Roles of Remdesivir and Dexamethasone for COVID-19

Remdesivir (Veklury) is now FDA-approved for all hospitalized COVID-19 patients who are at least 12 years old and weigh 40 kg or more.

But this doesn't mean it should be used more. And conflicting guidelines add to the confusion.

Be prepared to explain remdesivir's current role...especially compared to dexamethasone.

In patients NOT requiring supplemental oxygen, generally skip remdesivir...so far, there's no compelling evidence for benefit. And don't use dexamethasone...benefits don't seem to outweigh potential risks.

On the other hand, use dexamethasone in those REQUIRING supplemental oxygen, mechanical ventilation, or extracorporeal membrane oxygenation (ECMO). It reduces mortality in these patients...and costs under \$5/day.

In comparison, educate that remdesivir alone can shorten recovery time by a few days...but isn't shown to reduce mortality. Plus it costs over \$3,000/5-day course.

Consider ADDING remdesivir to dexamethasone in patients on LOW-flow supplemental oxygen, such as nasal cannula up to 6 L/min.

There's no current evidence the combo is better than dexamethasone alone. But these patients seem to benefit most from remdesivir. And the theoretical advantage of combining therapies may outweigh downsides.

On the flip side, there isn't good evidence that remdesivir shortens recovery in patients on mechanical ventilation or ECMO...or a HIGH-flow oxygen device, such as high-flow nasal cannula or BiPAP.

It's okay to CONTINUE remdesivir in patients who progress to these higher oxygen needs. But think twice before STARTING it in these cases.

Also consider limiting remdesivir to patients who are within 10 days of symptom onset. It's too soon to say if starting it later in the course of illness...when antivirals may be less effective...is helpful.

Stop remdesivir after 5 days in most patients. Evidence shows a 10-day course isn't better in those on low-flow OR high-flow oxygen.

But it's okay to continue for 10 days in patients on mechanical ventilation or ECMO...since there aren't 5-day studies in these patients.

Be aware, labeling doesn't recommend remdesivir if eGFR is less than 30 mL/min...due to concerns for accumulation of a cyclodextrin excipient, which may cause renal or liver toxicity.

But don't automatically rule out remdesivir with renal dysfunction. Risks are theoretical. Plus there's a similar warning and amount of cyclodextrin in IV voriconazole...but short courses seem well tolerated.

Get our chart, *Treatments of Interest for COVID-19*, for the latest on other therapies, including bamlanivimab and tocilizumab.

Key References:

-N Engl J Med 2020;383(19):1813-26

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