CARILION CLINIC
Antimicrobial Stewardship

Provider Education: Remdesivir (Veklury®) Outpatient Use

NIH Treatment Recommendations / Pinetree Study

Remdesivir is an antiviral FDA approved for the treatment of COVID-19 and is currently supported by NIH Guidelines.

Criteria for Use:

- Meets ALL of the following:
  - Adult or pediatric patient weighing at least 3.5 kg
  - Postive COVID-19 test and **only mild to moderate disease**
  - Within **7 days of symptom onset** (not from COVID-19 test result)
  - High risk of progression to severe disease

Efficacy Summary:

- Randomized placebo-controlled trial in non-hospitalized patients with mild to moderate COVID-19 patients with a high risk of developing severe disease within 7 days of symptom onset.[1]
- The primary outcome was the proportion of participants who were hospitalized for ≥24 hours or who died from any cause by Day 28.
  - Occurred in 2 of 279 (0.7%) remdesivir arm versus 15 of 283 (5.3%) placebo arm, an 87% relative reduction for remdesivir (HR 0.13; 95% CI, 0.03–0.59; *P* = 0.008).
- Remdesivir is expected to be active against the Omicron Variant.

Dosing: 200 mg IV x 1 day, then 100 mg IV x 2 days

No renal or hepatic adjustments are necessary.

- Package insert recommends not to use in eGFR <30 mL/minute due to potential accumulation of an excipient sulfobutylether-beta-cyclodextrin (SBECD).
  - However, this expected to be minimal with a 3-day duration course and there is data to support it's use regardless of renal function.[2]

Adverse Effects/Precautions

- **Adverse Effects**: The most common significant adverese effects are bardycardia, infusion-related reactions and elevated liver enzymes.
  - Rash, fever, nausea, sweating, shortness of breath, wheezing, or swelling of the lips, face, or throat may also occur.
  - **Patients will be monitored for infusion reactions 1 hour after the end of the infusion.**
- **Pregnancy/Lactation:** Information related to use in pregnant patients is available from small studies and case reports and therefore it may be used after risk/benefit discussion with OB provider.

Drug Interactions:

- Chloroquine and hydroxychloroquine **may dimish therapeutic** effects of remdesivir and are not recommended.
- Other strong CYP3A4 inducers **may decrease** the serum concentration of remdesivir but are no contraindicated.

1. Gottlieb, et al. NEJM Dec 2021.
2. Shah S, et. Al. AAC, 26 Jul 2021, 65(10):e0104521

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Administration:

- Administered over 30 minutes.
- May be a irritant, avoid extravasation.

Monitoring:

- Monitor for signs in symptoms of infusion reactions 1 hours after the end of the infusion.

1. Gottlieb, et al. NEJM Dec 2021.
2. Shah S, et. Al. AAC, 26 Jul 2021, 65(10):e0104521