BC COVID THERAPEUTICS COMMITTEE (CTC)
COVID THERAPY REVIEW and ADVISORY
WORKING GROUP (CTRAWG)

Therapeutic Update RE: Remdesivir

May 24, 2022

SUMMARY:

On May 2, 2022, the WHO SOLIDARITY trial reported its final results showing that treatment with open-label remdesivir may slightly decrease mortality in patients with severe COVID-19 requiring oxygen support. Meanwhile, British Columbia has increased its reliance on remdesivir as the preferred alternative to nirmatrelvir/ritonavir (Paxlovid) for mild-moderate disease, replacing sotrovimab. This had led to limited supplies of remdesivir worldwide. This memo serves to reinforce the recommended use of remdesivir across all disease severities and provide a supply update.

In patients with severe COVID-19 receiving oxygen support but not mechanical ventilation, **remdesivir** did not initially demonstrate benefit in survival in the SOLIDARITY trial (9.4% vs. 10.3%, NS) but was shown to slightly reduce mortality (14.6% vs. 16.3%, p=0.03) in the final analysis. The increase in baseline mortality, allowing for a small effect size to be observed, was driven by the Delta variant of concern in the second part of the trial. A 10-day course of remdesivir increased the length of hospital stay by 1 day. As mortality in patients with severe COVID-19 in Canada has decreased 10-fold in the Omicron wave compared to Delta, the potential impact of remdesivir on mortality is likely minimal. In addition, therapies including baricitinib which lower mortality and progression to ventilation have since been incorporated into the standard of care. If remdesivir is used in severe COVID-19, clinicians need to acknowledge the low probability of a benefit and the potential impact on length of stay. A 5-day course (or until discharge, whichever is sooner) should be used, as it has shown to be non-inferior to the 10-day course.

The evidence supporting remdesivir for COVID-19 favors its prioritization for mildly-moderately ill patients who cannot take nirmatrelvir/ritonavir (Paxlovid), where its clinical impact is more apparent. BC has secured sufficient supplies of remdesivir to continue current use in accordance with recommendations for mild-moderate disease. Nirmatrelvir/ritonavir (Paxlovid) remains the first-line therapy for mild-moderate COVID-19 in eligible individuals without contraindications regardless of patient location, including in hospital settings, where treating mild-moderate COVID-19 in those who qualify reduces progression to severe disease requiring hospital-level care for COVID-19 (e.g., supplemental oxygen support). Nirmatrelvir/ritonavir is the preferred agent due to more robust evidence supporting its use, lower costs due to oral administration, and ample supply.