

Remdesivir

Remdesivir Intravenous (IV) Administration Protocol

Indication: Remdesivir is a prodrug of a nucleoside analogue that has broad spectrum activity against members of the filoviruses (e.g. EBOV, MARV), CoVs (e.g. SARS-CoV, MERS-CoV) and paramyxoviruses (e.g. respiratory syncytial virus [RSV], Nipah virus [NiV], and Hendra virus).

Presentation: Remdesivir powder for injection, 100mg vial, is a single-use, preservative-free, white to off-white or yellow, lyophilized solid containing 100mg of remdesivir.

Drug Supply & Access: Remdesivir is available on compassionate access from Gilead for the treatment of Covid-19. Please liaise with an Infectious Diseases consultant to access.

Storage: Store the powder vials at room temperature, i.e. below 30°C. After reconstitution and/or dilution with NaCl 0.9%, the total storage time before administration should not exceed 4 hours at room temperature (below 30°C) or 24 hours at refrigerated temperature (2°C to 8°C)

Dose: The recommended **adult** dosing and duration of remdesivir for injection is 200mg stat dose on day 1, followed by 100mg once daily on days 2-10.

Reconstitution and dilution

Wear gloves and apron when preparing remdesivir. Use aseptic non-touch technique as per CUH IV Administration Guidelines.

1. Reconstitute remdesivir 100mg powder for injection with 19mL sterile water for injection using a 21G needle to give a 5mg/mL concentrated solution. Immediately shake the vial for 30 seconds. Allow the contents of the vial to settle for 2 to 3 minutes. The solution should be clear.
2. Remove and discard the required volume of NaCl 0.9% from a 250mL infusion bag (see **table 1**).
3. Withdraw the required volume of reconstituted solution containing remdesivir for injection i.e. 20mL (100mg) or 40mL (200mg). As each vial of reconstituted solution containing remdesivir for injection will contain overfill, it is common for residual solution to remain in the vial after withdrawing the required amount. Only withdraw the exact volume of reconstituted solution containing remdesivir for injection. Discard any unused reconstituted solution containing remdesivir for injection.
4. Inject the appropriate volume of reconstituted solution containing remdesivir for injection slowly into the NaCl 0.9% infusion bag and invert the bag 20 times to obtain a uniform mixture.

Dose (mg) and number of Remdesivir 100mg vials	Infusion bag volume to be used (mL)	Volume to be withdrawn and discarded from NaCl 0.9% bag (mL)
200mg (2 vials)	250mL	40mL
100mg (1 vial)	250mL	20mL

Table 1: Dilution instructions for remdesivir IV infusion

5. If a patient is **fluid restricted NaCl 0.9% 100ml can be used** following the dilution instructions in **table 2**

Dose (mg) and number of Remdesivir 100mg vials	Infusion bag volume to be used (mL)	Volume to be withdrawn and discarded from NaCl 0.9% bag (mL)
200mg (2 vials)	100mL	40mL
100mg (1 vial)	100mL	20mL

Table 2: Dilution instructions for remdesivir IV infusion for fluid restricted patients

This information has been summarised to act as a guide for those administering IV medication. The monograph should be used in conjunction with the drug data sheet and BNF for information on dose, adverse effects, cautions and contra-indications. Further information is available from Pharmacy on 22146 or 22542

Administration

- Administer the IV infusion over 30 minutes. The infusion time may be extended up to 60 minutes in situations where 30 minutes is not operationally feasible
- When the administration of remdesivir solution is complete, flush the line with at least 30mL of NaCl 0.9% to ensure that all the remdesivir solution has been administered

Disposal: Any remaining reconstituted remdesivir for injection and / or diluted remdesivir solution for infusion should be disposed of in a purple lided sharps bin.

References

1. Gilead. Investigator's Brochure. REMDESIVIR (GS-5734TM) – EBOLA VIRUS DISEASE, MARBURG VIRUS DISEASE, CORONAVIRUS DISEASE. Edition 5. 21 February 2020
2. Gilead. Instructions for Preparation and Administration of Remdesivir (GS-5734) for injection, 100mg Version 1.0, 15 February 2020

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