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Role of Remdesivir in the Management of Covid-19- A Review

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Abstract

Today the world is facing a pandemic and the cause of this pandemic (Covid-19) is Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). As such there is no specific antiviral drug available for the treatment of Covid-19. Remdesivir is a broad-spectrum antiviral drug which act by inhibiting RNA dependent RNA polymerase. It is a prodrug and upon activation inside the host cell converted into active form, Remdesivir nucleoside triphosphate (adenosine triphosphate analogue) which compete with natural counterpart ATP, for incorporation into viral RNA. It leads to termination of chain elongation of RNA dependent RNA polymerase. In various studies Remdesivir has shown promising effect for the management of Covid-19 hence US FDA has issued an emergency use authorization (EUA) for its use in the management of Covid-19 but WHO's latest recommendations do not promote it. With this background we tried to present review of Remdesivir to give details about its pharmacokinetics, pharmacodynamics, safety issues and recommendations.