

A Review Article On: Role of Remdesivir in Corona Epidemic

Rudranee U. Wagdare and Vaishnavi N. Yermalwar.

Shivlingeshwar College of Pharmacy, Almala, Latur.

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ABSTRACT

Remdesivir is an antiviral medicine, used to treat coronavirus disease. Brand of Remdesivir is Veklury. This medicine is to be given only by under supervision of doctor. Its is a first drug approved by FDA for treating SARS-CoV-2. We review Role of Remdesivir in Corona Epidemic, which supports the clinical treatment of COVID-19. This review discuss about Role of Remdesivir, Brand of Remdesivir, Cost of Remdesivir and Side Effects of Remdesivir.

KEYWORDS: Remdesivir(rem-DE-si-vir), coronavirus(covid-19), SARS-CoV-2, Veklury.

I. INTRODUCTION

Remdesivir is used to treat people with coronaviruses disease 2019 (covid-19). Remdesivir is an antiviral medicine. This medicine is to be given only by under immediate supervision of doctor. Remdesivir sold under the brand name Veklury. During the COVID-19 epidemic, remdesivir injection was approved for emergency use to treat COVID-19 in around 50 countries. Remdesivir is approved for the use in adults and children at least 12 yrs old who weigh at least 40 kg. Remdesivir is a nucleotide analogue prodrug

that perturbs viral replication, originally evaluated in clinical trials to withdraw the Ebola outbreak in 2014. Subsequent evaluation by numerous virology laboratories demonstrated the ability of remdesivir to inhibit coronaviruses replication, including severe acute respiratory syndrome coronavirus (SARS-CoV-2). Coronaviruses are the family of enclosed viruses with a positive-sense, single-stranded RNA genome that infects animal species and humans. Coronaviruses primarily cause respiratory and intestinal infections in humans and animals. Discovered in 1960s, they were originally thought to be only responsible for the mild disease. That changed in 2003 with the SARS pandemic and in 2021 with the outbreak of middle east respiratory syndrome MERs, both zoonotic infections that results in mortality rates greater than 10% and 35%, respectively. Evidence also supports that the novel coronavirus which come out in the Wuhan region of China in late 2019 also originated from bats. This novel coronavirus, severe acute respiratory syndrome corona virus 2, resulted in an outbreak of the pathogenic viral pneumonia in Wuhan, Hubei Province, China, as reported to the World Health Organization (WHO) in December 2019.



Fig. Remdesivir Injection.

BRAND OF REMDESIVIR IN INDIA :

COMPANY	BRAND
Zydus Cadila	Remdac
Hetero Labs	Covifor
Dr. Reddy	Redyx
Cipla	Cipremi

COST OF REMDESIVIR IN INDIA :

The increased Covid-19 cases in the India, which has an active caseload of more than 20,000 and shortage of the much needed Remdesivir have come in handy for dishonestly pharmacists to sale the drug at consumedly price in black market. A single vial of Remdesivir is being sold at an excessive price of Rs. 50,000 though its price is capped by government at Rs.2,000. Due to the less stock of Remdesivir injection, it was sold in black. Actual price of Remdesivir injection was Rs. 2,000 , it was sold up to Rs.50,000.

Corona virus disease is an infectious disease caused by SARS-CoV-2. The SARS-CoV-2 virus belongs to family of viruses called coronavirus. First identified in the city of Wuhan, in China’s Hubei province in December 2019. COVID-19 was previously known as respiratory disease before the WHO declared official name as COVID-19 in Feb 2020. The virus can spread from an infected person’s nose or mouth in small liquid particles when they sneeze, speak, cough or breathe. If you are near someone who has COVID-19, or by touching a contaminated surface and then your nose, eyes or mouth. The virus spread more easily indoors and in crowd.

CORONA VIRUS(COVID-19) :

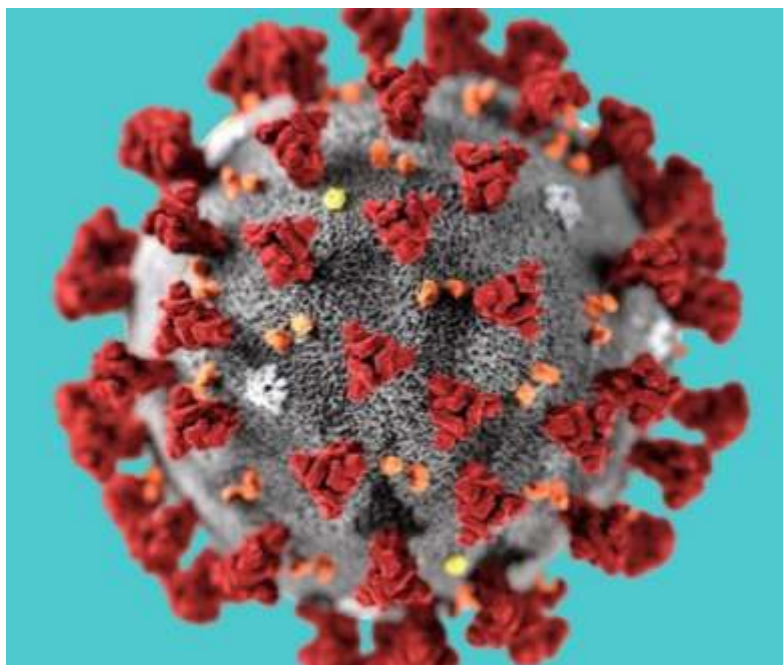


Fig. Corona Virus (COVID-19)

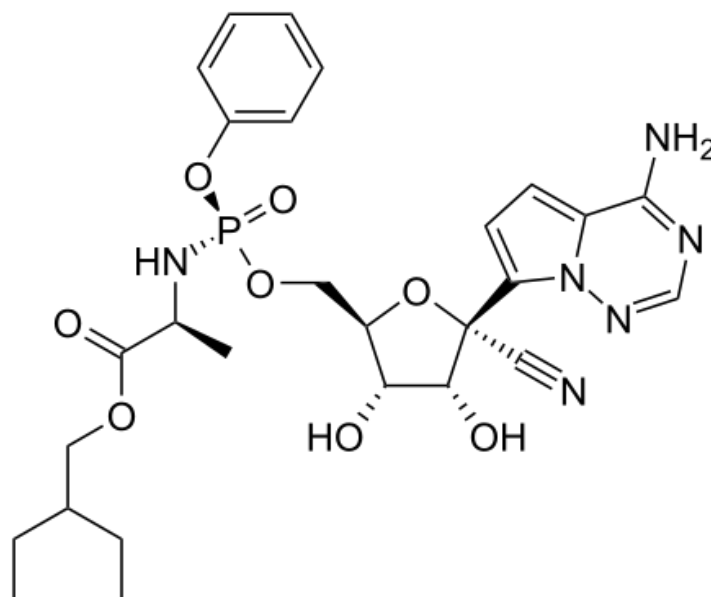
SYMPTOMS OF COVID-19 :

- | | |
|----------------------------|----------------------------|
| 1) Cough | 8) Diarrhoea |
| 2) Fever | 9) Difficulty in breathing |
| 3) Sputum production | 10) Chest pain |
| 4) Tiredness | 11) Nausea |
| 5) Loss of taste and smell | 12) Shivering |
| 6) Sore throat | |
| 7) Headache | |

ROLE OF REMDESIVIR :

Remdesivir was the first drug accepted by Food and Drug Administration for treating severe acute respiratory syndrome coronavirus 2. It is produced by Gilead Sciences. It is suggested for treatment of COVID-19 disease in hospitalized adults and children aged 12 years and older weigh

at least 40kg. It is an antiviral medicine. Remdesivir works by interrupting production of virus. COVID-19 has genomes made up of ribonucleic acid (RNA). It interferes with one of the key enzymes the virus needs to replicate RNA. Remdesivir prevents the virus from multiplying.



Str. Remdesivir

SIDE EFFECTS OF REMDESIVIR :

- 1) Respiratory failure
- 2) Nausea
- 3) Sweating
- 4) Shivering
- 5) Vomiting
- 6) Dizziness
- 7) Body rash
- 8) Wheezing
- 9) Slow heartbeat
- 10) Swelling of the tongue, face, throat, eyes or lips
- 11) Dark yellow colored urine
- 12) Fever
- 13) Low or high blood pressure
- 14) Abnormal liver function test
- 15) Chills(cold)
- 16) Itching
- 17) Severe headache
- 18) Stomach pain
- 19) Hives
- 20) Difficulty swallowing

II. CONCLUSION

As the Covid-19 epidemic races across the world, the whole pharmaceutical companies has mobilized to fight against this by developing vaccines and treatment against Covid-19. All needed was the fastest therapeutic against this pandemic. Remdesivir has demonstrated efficacy against Covid-19 in both *in vitro* and *in vivo* conditions. Remdesivir has given 31% faster time recovery than other medications. U. S. Food and Drug Administration has issued the emergency use of Remdesivir in hospitalized patients suffering from Covid-19.

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