

COVID-19

TREATING A VIRAL INFECTION

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what are antivirals?

antivirals

fight viral infections

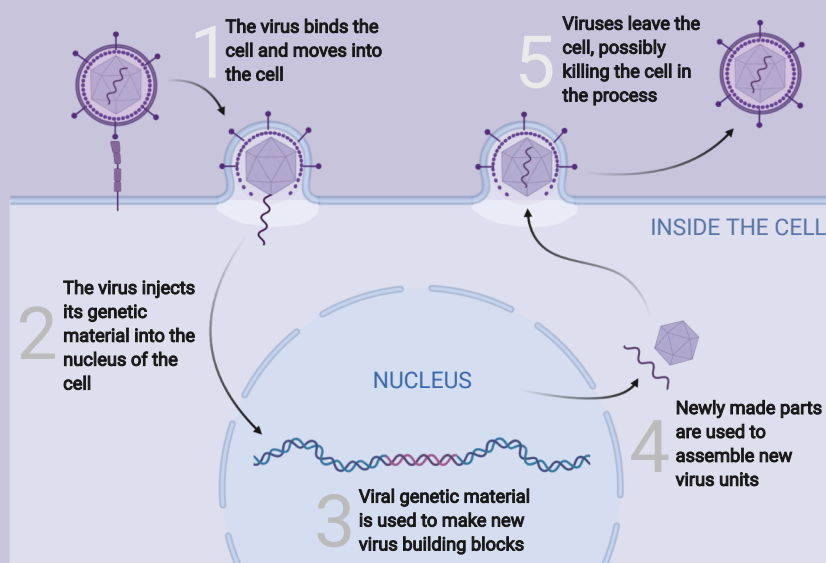
example: acyclovir

antibiotics

fight bacterial infections

example: penicillin

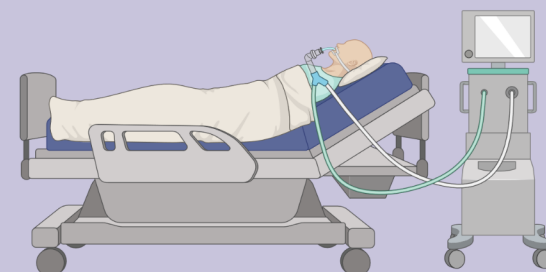
Antivirals work to inhibit the ability of the virus to replicate itself and prevent viral entry into healthy cells. They can work at any of these stages:



what can we do now?

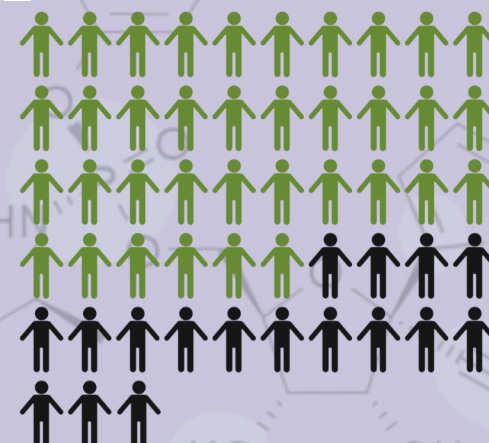
CURRENT TREATMENTS : while there is no approved treatment for patients who have severe COVID-19, there are guidelines for the treatment of complications. These include (1) antimicrobials to treat pneumonia and sepsis, (2) ventilators to manage acute respiratory distress syndrome.

PROPHYLAXIS : these treatments hope to prevent infection after exposure. Currently, 2 types of drugs are being tested in Canada: (1) hydroxychloroquine, an anti-malarial drug, and lopinavir/ritonavir, two drugs used for HIV patients.



what's in development:

REPURPOSING DRUGS : remdesivir is a drug that works to inhibit the replication of viruses. It was previously used in the treatment of Ebola and has now been approved by the FDA for emergency use in the COVID-19 pandemic in the US. Other promising drugs include lopinavir/ritonavir (used for HIV patients), favipiravir (indicated for novel influenza in Japan), and sarilumab (a rheumatoid arthritis drug).



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53

patients show clinical improvement after 18 days on remdesivir

is that really true?

True or false?
COVID-19 was deliberately created and released.

FALSE! Viruses change over time which can lead to outbreaks of novel viruses. Protect yourself by staying home and practicing good hygiene!

Are there any drugs licensed for protection against COVID-19?

NO! Trials are ongoing but no drugs have been approved in Canada. DO NOT ingest drugs approved for other uses without a doctor's consent!

Will ingesting bleach or alcohol protect me from getting sick?

NO! Cleaning products are poisonous and should never be ingested. Use them to clean surfaces and wash your hands regularly.

For more information:

<https://www.canada.ca/en/health-canada/services/drugs-health-products/covid19-clinical-trials/list-authorized-trials.html>

<https://www.nejm.org/doi/full/10.1056/NEJMoa2007016>

Sanders et al., 2020, Pharmacologic Treatments for Coronavirus Disease 2019 (COVID-19). *JAMA*. 323(18):1824–1836

<https://www.britannica.com/science/antiviral-drug>



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