

16/MHS06/042

Covid 19 (Corona virus)

Corona virus consists of a vast family of viruses, 7 of these viruses which are known to cause disease in humans. Some of these coronaviruses that can typically infect animals have been known to evolve to infect humans. SARS-CoV-2 is likely one of such viruses, which was postulated to have originated in a large animal and seafood market. Recent cases involves individuals who reported no contact with animal markets, suggesting that the virus is now spreading from person to person.

SARS - Simply means Severe acute respiratory syndrome and

MERS - Simply means Middle east respiratory syndrome.

These 2 are caused by coronaviruses that 'jumped' from animals to humans. More than 8,000 individuals developed SARS, nearly 800 of whom died of the illness (mortality rate of approximately 10%), before it was controlled in 2003. MERS continues to

resurface in sporadic cases. A total of 2,466 laboratories confirmed cases of MERS have been reported since 2012 resulting in 850 deaths (mortality rate of 34.5%).

EPIDEMIOLOGY OF THE COVID-19 VIRUS.

As of March 31st, 2020, COVID-19 has been confirmed in more than 803,000 individuals worldwide and has resulted in more than 39,000 deaths. More than 170 countries have reported laboratory-confirmed cases of COVID-19 on all continents except Antarctica.

In the United States, 164,719 cases of COVID-19 have been confirmed as of March 31, 2020 resulting in 3,170 deaths. As of March 26th, 2020, the United States has more confirmed infections than any other country in the world, including China and Italy.

16 / MHS06 / 042

Transmission is believed to occur via respiratory droplets from coughing and sneezing, as with other respiratory pathogens, including influenza and rhinovirus. Virus released in respiratory secretions can infect other individuals via direct contact with mucous membranes. Droplets usually cannot travel more than 6 feet. The virus can also persist on surfaces to varying durations and degrees of infectivity. One study found that SARS-CoV-2 remained detectable for up to 72 hours, some surfaces despite decreasing infectivity over time. The study reported that no viable SARS-CoV-2 was measured after 4 hours on copper or after 24 hours on cardboard.

The duration of viral shedding varies significantly and may depend on severity. Among 137 survivors of COVID-19, viral shedding based on testing of oropharyngeal samples ranged from 8-32 days with a median of 20 days.

A difficult study found that repeated viral RNA tests using nasopharyngeal swabs

were negative in 90% of cases among 21 patients with mild illness, whereas results were positive for longer durations in patients with severe COVID-19.

STRUCTURE OF COVID-19

Corona virus, was given the name corona because it is a crown, enveloped virus.

